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Sediment Data

Ontario

Données sur les sédiments

1986

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PREFACE

This publication was prepared by personnel of the Sediment Survey Section, Water Survey of Canada Division, under the direction of the Director, Water Resources Branch, Department of the Environment, Ottawa.

The basic data were collected and compiled under the supervision of the Regional Chief of the Water Resources Branch at Guelph, Ontario.

The co-operation received from provincial agencies and from other organizations is gratefully acknowledged.

PRÉFACE

Le groupe d'étude des sédiments de la Division des relevés hydrologiques du Canada, sous l'autorité du directeur des Ressources en eau du ministère de l'Environnement, à Ottawa, a préparé la présente publication.

Le chef régional de la Direction des ressources en eau, à Guelph (Ontario), a supervisé la collecte et la compilation des données de base.

Nous remercions vivement les organismes provinciaux, ou autres, pour leur collaboration.

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INTRODUCTION

The Water Resources Branch of the Department of the Environment herein presents for the 1986 calendar year the annual suspended sediment data and a historical data summary for the sediment survey investigations conducted in Ontario by the Water Survey of Canada.

Data on the character and quantity of fluvial sediments provided by sediment survey investigations are intended for use in studies of water quality, environmental impacts, river processes and behaviour, and engineering design.

General introductory information on the sediment survey is included in this publication. Similar information for the associated hydrometric survey is given in the regular publications containing surface water data.

Details on individual stations and related records, as well as recent data that have not yet been published, may be obtained upon application to:

Regional Chief,
Water Resources Branch,
Department of the Environment,
Federal Building,
75 Farquhar Street,
Guelph, Ontario.
N1H 3N4

or to the Director, Water Resources Branch, Department of the Environment, Ottawa, Ontario, K1A 0H3.

INTRODUCTION

Dans la présente publication de la Direction des ressources en eau du ministère de l'Environnement, on trouvera les données annuelles sur les sédiments en suspension pour 1986 et le sommaire des données chronologiques sur les sédiments, à la suite des études effectuées dans les cours d'eau de l'Ontario par la Division des relevés hydrologiques du Canada.

Les données recueillies sur la nature et l'importance de la charge solide dans les cours d'eau doivent servir aux études portant sur la qualité des eaux, les incidences environnementales, les processus fluviaux, le comportement des cours d'eau et la conception de projets.

La presente publication contient des renseignements généraux préliminaires sur les études des sédiments. Des renseignements semblables sur les études hydrométriques connexes sont contenus dans les publications régulières présentant des données sur les eaux de surface.

On peut obtenir des renseignements supplémentaires sur les stations et les relevés, ainsi que des données récentes non encore publiées, en s'adressant au:

Chef régional
Direction des ressources en eau
Ministère de l'Environnement
Édifice fédéral
75, rue Farquhar
Guelph (Ontario)
N1H 3N4

ou au directeur des Ressources en eau, ministère de l'Environnement, Ottawa (Ontario), K1A 0H3.

SCOPE OF PUBLICATION

Descriptive information about sediment stations is given. This refers to the Location, Latitude and Longitude, Drainage Area and whether the flow is Natural Flow or Regulated Flow (the year that regulation began is given, if known), Type of Gauge and the Total Suspended Sediment Load in Tonnes for the Period of Record is also included. International Gauging Stations are identified and the names of co-operating agencies who supply data are given; unusual conditions at the sediment station that could affect the data results are explained under "Remarks".

This publication contains data on streamflow, instantaneous suspended sediment concentration; daily mean suspended sediment concentration; daily suspended sediment loads; dissolved solids concentration; load summary; particle-size distribution of suspended sediment in percent sand, silt and clay; bed load and bed material; water temperature when samples were collected; type of sampler and the single sampling vertical location.

A historical sediment data summary includes such information as Sampled Concentration Maximum and Minimum; Suspended Sediment Load Maximum Daily and the Total for Period. The Period of Record and the Type of Operation for each year of data are also given. A Summary for the Months of record gives the Period of Record Mean, the Mean for Period of Record and the Standard Error of Mean as a percent.

HISTORY AND OBJECTIVES OF SEDIMENT SURVEYS IN CANADA

In Canada, investigations of sediment transported by streams were first undertaken by individual organizations or agencies in 1948, to meet the needs of federal and provincial agencies for assessment of particular projects. Although the investigations were extended to meet expanding needs after 1948, it was not until 1961 that a systematic survey was undertaken by the Water Resources Branch.

The sediment survey program has the following objectives:

(1) Collection and provision of data related to sediment transport in Canadian rivers for applications in water resource engineering, water quality and environmental studies.

(2) Provision of information and advice related to sediment transport.

(3) Assessment, improvement and standardization of equipment and techniques used in Canada's sediment survey program.

PUBLICATION OF SURFACE WATER AND SEDIMENT DATA

Sediment data have been published in a variety of formats since the beginning of the Sediment Survey Program.

PORTÉE DE LA PUBLICATION

Des données descriptives sont présentées sur les stations d'étude des sédiments. Elles concernent leur emplacement, leurs latitude et longitude, leur bassin versant, la nature de débit (naturel ou régularisé, avec indication, le cas échéant, de l'année où la régularisation a commencé, si elle est connue), le type d'instrument de mesure employé et le débit total des sédiments en suspension (en tonnes) pour la période de relevé. Les stations internationales de jaugeage sont indiquées, ainsi que le nom des organismes qui fournissent les données. Des explications concernant des conditions exceptionnelles qui ont pu influer sur les résultats sont présentées dans la partie «Remarques».

Cette publication renferme des données sur le débit des cours d'eau, les concentrations instantanées de sédiments en suspension, les concentrations journalières moyennes de sédiments en suspension, les débits journaliers de sédiments en suspension, les concentrations de matières dissoutes, les débits solides totaux (résumés), la granulométrie des sédiments en suspension exprimée en pourcentage de sable, de limon et d'argile, le charriage et les matériaux du lit, la température de l'eau au moment de l'échantillonnage, le type d'échantillonneur employé et l'emplacement des verticales de prélèvement d'échantillons uniques.

Un résumé des données historiques sur les sédiments est inclus. On y trouve divers renseignements comme les concentrations maximale et minimale mesurées, le débit journalier maximal des sédiments en suspension et le total pour la période. La période de relevé et le type d'exploitation des stations sont indiqués pour chaque année. Dans un résumé pour les mois de relevé, on donne la moyenne pour chaque période et pour l'ensemble des périodes de relevé ainsi que l'erreur-type de la moyenne, en pourcentage.

HISTORIQUE ET OBJECTIFS DES ÉTUDES DES SÉDIMENTS AU CANADA

Au Canada, les études dans ce domaine ont débuté en 1948 en réponse aux besoins exprimés par certains organismes fédéraux et provinciaux pour l'évaluation de projets donnés et étaient le fait d'organismes privés. Bien que les études se soient poursuivies après 1948 pour satisfaire aux besoins accrus, ce n'est qu'en 1961 que la Direction des ressources en eau les a entreprises de façon systématique.

Les buts de ces études sont de:

(1) réunir et produire des données sur les transports solides dans les cours d'eau canadiens, données dont on peut avoir besoin pour des études concernant l'environnement, la qualité des eaux et la conception de projets portant sur les ressources en eau.

(2) produire des informations concernant les transports solides.

(3) évaluer, améliorer et uniformiser le matériel et les techniques employés dans le programme d'étude des sédiments au Canada.

PUBLICATION DES DONNÉES SUR LES EAUX DE SURFACE ET LES SÉDIMENTS

Depuis le début du programme d'étude des sédiments, la présentation des données a varié.

During the years 1948 to 1960, some sediment data were collected for several Prairie rivers to meet the needs of particular projects. The first Water Resources Paper series containing sediment data incorporated a selection of these data and also data for part of the year ending September 30, 1961, at stations established for the continuing program. The second issue was a biennial publication covering only the continuing program for the 1962 and 1963 water years. All subsequent editions titled *Sediment Data Canadian Rivers* have been published annually. The sediment data since 1978 have been presented entirely in the International System of Units (SI).

Commencing with 1984, the *Sediment Data* were published in a new format wherein Canada was divided into eight regions. The provinces each represent a separate region except for New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island, which together form the Atlantic Provinces region, and the Yukon and Northwest Territories which make up another. The publications are identified by the province or territories covered and the year in which the data were collected. These data are published annually on a calendar-year basis and the stations are listed alphabetically.

A new edition, *Miscellaneous Sediment Data 1966 to 1983*, was published. It contains a tabulation of locations in Canada where miscellaneous data were collected but not previously published by the Water Survey of Canada. The following data are included in this one time publication: date and time of sample collection; instantaneous discharge or daily mean discharge; sampling vertical; instantaneous concentration; dissolved solids for some samples; type of sampler used; particle size distribution of suspended sediment in percent sand, silt and clay for some depth integrated samples and/or measurements, and some point integrated measurements; particle size distribution of bed load; particle size distribution of bed material; and the water temperature at time of sampling for some samples is also given where available.

The first edition of a *Sediment Data Reference Index* was published for data to 1972. It contains a tabulation of locations in Canada where sediment data were collected by the Water Survey of Canada. The index has been subdivided alphabetically by province or territory, with sediment survey stations also listed alphabetically. Commencing with the 1978 publication, data are presented in the International System of Units (SI) and will continue to be published biennially. The latest edition supersedes all previous editions because it contains any corrections or additions since the last publication.

The first edition of a new publication series titled *Historical Sediment Data Summary for Canadian Rivers* was produced for data to 1974. This publication contains a summary of historical monthly and annual mean suspended sediment load, and annual extremes of daily suspended sediment concentration and loads and total annual suspended load. Commencing with the 1978 publication, data are presented entirely in the International System of Units (SI). This publication has been discontinued, as much of the information is now included in the new annual *Sediment Data* publication.

De 1948 à 1960, on a recueilli des données pour plusieurs cours d'eau des Prairies en prévision de la réalisation de certains projets. La première publication contenant des données sur les sédiments a paru dans la série intitulée *Water Resources Paper*; elle présentait un choix de ces données ainsi que des données recueillies en 1961 avant le 30 septembre à des stations établies pour la réalisation du programme permanent. La deuxième publication a porté sur les données recueillies dans le cadre du programme au cours des années hydrologiques 1962 et 1963. Par la suite, les données ont été publiées annuellement sous le titre *Données sur les sédiments - rivières canadiennes*. Depuis 1978, les données sont exprimées en unités du Système international (SI).

En 1984, la présentation des *Données sur les sédiments* a été modifiée. Le Canada a été divisé en huit régions, une région pour chaque province, sauf le Nouveau-Brunswick, Terre-Neuve, la Nouvelle-Écosse et l'Île-du-Prince-Édouard qui, ensemble, forment la région des provinces de l'Atlantique, et les Territoires du Yukon et du Nord-Ouest, qui forment une autre région. Les publications sont nommées selon la région couverte et l'année des données (année civile). Ces publications sont annuelles. Les stations y sont présentées par ordre alphabétique.

Une édition récente intitulée *Données diverses sur les sédiments, 1966 à 1983* vient de paraître. On y présente sous forme de tableau les emplacements où des données diverses non encore publiées ont été recueillies au Canada par la Division des relevés hydrologiques. Cette première édition comprend des données telles que : la date et la durée de l'échantillonnage; le débit instantané ou débit journalier moyen; la verticale d'échantillonnage; les concentrations instantanées; les concentrations de matières solides en solution pour certains échantillons; le type d'échantillonneur employé, la granulométrie des sédiments en suspension en pourcentage de sable, de limon et d'argile, dans le cas de mesures avec intégration selon la profondeur ou d'échantillons intégrés sur toute la profondeur, et dans le cas de mesures par la méthode ponctuelle; la granulométrie du charriage; la granulométrie des matériaux du lit; la température de l'eau lors du prélèvement d'échantillons, lorsque celle-ci est connue.

Un *Index de référence des données sur les sédiments* est publié. La première édition portait sur les données disponibles jusqu'en 1972. Les emplacements où des données sur les sédiments ont été recueillies au Canada par la Division des relevés hydrologiques y sont présentés sous forme de tableau. L'*Index* est subdivisé selon l'ordre alphabétique par province ou territoire, et les stations de mesure des sédiments sont classées par ordre alphabétique. À partir de 1978, les données sont exprimées en unités du Système international (SI). L'*Index* est publié tous les deux ans; l'édition la plus récente annule toutes les éditions antérieures, car elle renferme toutes les corrections et mises à jour effectuées depuis la dernière parution.

Une autre série de publications a porté le titre *Sommaire chronologique des données sur les sédiments de rivières canadiennes*. La première édition renfermait les données disponibles jusqu'en 1974. Cette série présentait un résumé donnant les moyennes mensuelles et annuelles historiques du débit des sédiments en suspension, les valeurs annuelles extrêmes de la concentration journalière et du débit journalier des sédiments en suspension et le débit annuel total des sédiments en suspension. À partir de 1978, les données ont été présentées en unités du Système international (SI). Cette série a été abandonnée, car une bonne partie de l'information est maintenant contenue dans la nouvelle publication annuelle intitulée *Données sur les sédiments*.

COLLECTION AND PROCESSING OF BASIC DATA

1. *Equipment and Instrumentation*

The sediment survey program of the Water Resources Branch is conducted in cross sections on rivers selected specifically for the sediment survey or for the hydrometric survey. Certain cross sections are located at traffic bridges, while others are equipped with cableways, or automatic pump samplers.

The following sediment samplers have been used in the sediment survey program:

(a) Depth-integrating suspended sediment wading-type hand sampler, USDH-48, used on small streams or during winter periods.

(b) Depth-integrating suspended sediment sampler, USDH-59, used as a handline suspension for small and medium size streams.

(c) Depth-integrating suspended sediment samplers, USD-49, and USD-74, used on a reel suspension for medium and large streams whose depths are less than five metres.

(d) Point-integrating suspended sediment samplers, USP-61, USP-61-A1, USP-63, and USP-72, used for point-integrating sampling, or depth-integrating sampling if the depth is over five metres, or in a cross section with velocities up to two metres per second.

(e) Automatic pump sampler is an automatic pumping system permitting unattended collecting and bottling of individual water samples pumped from a fixed point in a stream. This sampler is normally installed at isolated locations where otherwise no data would be available during ice break-up or peak periods.

(f) Bed material sampler, USBM-54, used on large or deep streams or on those streams with hard-packed streambeds.

(g) Bed material sampler, USBMH-60, used on some large or deep streams or on those streams with soft-packed streambeds.

(h) Bed material sampler, USBMH-53, used on some small or shallow streams.

(i) Lane bed material sampler, a drag-type sampler used on small streams or those with soft streambeds.

2. *Hydrometric Surveys*

The hydrometric survey includes the standard procedures for observations of water levels, streamflow measurements, water surface slope determinations if required, and observations of water temperature. The streamflow measurements are made in conjunction with the sediment load measurements and conform to the accepted standards of the regular hydrometric survey.

3. *Sediment Sampling Program*

The following is a summary of the elements associated with the Sediment Sampling Program:

(a) Periodic measurement of suspended sediment load by the

COLLECTE ET TRAITEMENT DES DONNÉES DE BASE

1. *Matériel*

L'étude des sédiments réalisée par la Direction des ressources en eau porte sur des sections transversales de cours d'eau choisis spécialement à cette fin ou pour les relevés hydrométriques. Certaines sections sont situées sous un pont, d'autres sont accessibles par téléphérique, ou sont étudiées à l'aide d'un échantillonneur sous pression.

On a utilisé les échantillonneurs suivants:

(a) L'échantillonneur intégrateur selon la profondeur, type simple, USDH-48, employé dans les cours d'eau peu profonds ou en hiver;

(b) L'échantillonneur intégrateur selon la profondeur USDH-59, utilisé comme une ligne dans les cours d'eau petits et moyens;

(c) Les échantillonneurs intégrateurs selon la profondeur USD-49 et USD-74 fixés au bout d'une corde s'enroulant autour d'un moulinet et employés dans les cours d'eau gros ou moyens dont la profondeur est inférieure à cinq mètres;

(d) Les échantillonneurs intégrateurs USP-61, USP-61-A1, USP-63 et USP-72, employés ponctuellement ou sur toute la verticale, et utilisés lorsque la profondeur est supérieure à cinq mètres ou dans les sections transversales qui connaissent un débit qui atteint 2 m/s.

(e) Un échantillonneur automatique permettant le prélèvement en bouteilles, sans surveillance, d'échantillons uniques d'eau obtenus à l'aide d'une pompe en un point précis d'un cours d'eau; il est ordinairement installé dans un endroit isolé où aucune donnée ne pourrait être obtenue autrement au cours de la débâcle ou des périodes de débit de pointe;

(f) L'échantillonneur USBM-54 employé pour le prélèvement d'échantillons des matériaux du lit dans les cours d'eau importants ou profonds ou dans les cours d'eau dont le fond est dur;

(g) L'échantillonneur USBMH-60 employé pour le prélèvement d'échantillons des matériaux du lit dans certains cours d'eau importants ou profonds, ou dans les cours d'eau dont le fond est meuble;

(h) L'échantillonneur USBMH-53 employé pour le prélèvement d'échantillons des matériaux du lit dans certains cours d'eau petits ou peu profonds;

(i) La drague employée pour le prélèvement d'échantillons des matériaux du lit dans de petits cours d'eau ou dans des cours d'eau dont le fond est meuble.

2. *Relevés hydrométriques*

Le relevé hydrométrique comprend, entre autres, l'observation de la hauteur des eaux, la mesure du débit de l'eau, la détermination de la pente de la ligne d'eau, si nécessaire, ainsi que l'observation de la température de l'eau. Les mesures du débit de l'eau et du débit des sédiments se font conjointement, suivant les méthodes acceptées.

3. *Échantillonnage des sédiments des cours d'eau*

L'échantillonnage comporte, en gros, les éléments suivants:

(a) La mesure périodique du débit des sédiments en suspension par la méthode d'intégration sur toute la profondeur

depth-integrating method for determining the average suspended sediment concentration in the cross section.

(b) Single suspended sediment samples at a selected vertical for determining the sediment concentration for the days when suspended sediment load measurements are not taken.

(c) Limited measurement of suspended sediment load by the point-integrating method for checking depth-integrated measurements and for determining particle-size distribution in the cross section.

(d) Sampling of bed material for determining particle-size distribution.

(e) Periodic measurement of bed load.

The following is a brief explanation of the elements listed above:

(a) *Suspended Sediment Load by Depth-Integrating Method*: Measurements are made by the depth-integrating method to determine the suspended sediment load in the entire cross section of a stream, the average suspended sediment concentration in the cross section, and the size distribution of the sediment particles. It is known that the concentration of suspended sediment tends to increase from the water surface to the streambed and could vary from streambank to streambank.

When making suspended sediment equal-discharge-increment (EDI) measurements, the stream cross section is divided into at least five equal-flow panels and a representative suspended sediment sample is collected from each portion. For each panel of the cross section, the suspended sediment load (r) may then be computed by multiplying the flow (q) by the suspended sediment concentration (c):

$$r = q\ c$$

The suspended sediment load (R) for the cross section may be computed by adding the sediment loads for the five equal-flow panels:

$$R = r\ n = q_1c_1 + q_2c_2 + \ldots + q_nc_n$$

The depth-integrating method of sampling is used to measure the suspended sediment concentration. This method is based on the premise that the sampler fills at a rate proportional to the velocity of the approaching flow, and that by traversing the depth of a stream at a uniform speed, the sampler will receive a portion of water sediment mixture at every point in the vertical.

(b) *Single Suspended Sediment Samples at a Selected Vertical*: Single suspended sediment samples, consisting of two bottles each, are collected routinely using the depth or point-integrating samplers at a permanently fixed vertical in a cross section. During periods of very heavy sediment concentration, two or three single sediment samples may be taken per day, while during periods of low concentration, one single sediment sample may only be taken every few days. During extremely low flow periods, the sampling may be limited to one single sample in several weeks or months.

(c) *Suspended Sediment Load by Point-Integrating Method*: A limited number of suspended sediment load measurements are made by the point-integrating method. These measurements are included in the program (a) to check by comparison the "measured" sediment loads obtained by the depth-integrating method with the suspended sediment loads by the point-integrating method and (b) to obtain samples from which to determine particle-size distribution

pour la détermination de la concentration moyenne dans une section transversale;

(b) Le prélèvement d'échantillons uniques des sédiments en suspension selon une verticale choisie, afin de déterminer la concentration des sédiments les journées où le débit des sédiments en suspension n'est pas mesuré;

(c) Un nombre restreint de mesures du débit des sédiments en suspension avec intégration en un point précis d'un cours d'eau, afin de vérifier les résultats des mesures avec intégration selon la profondeur et afin de déterminer la granulométrie des particules de sédiments dans une section transversale d'un cours d'eau;

(d) L'échantillonnage des matériaux du lit afin d'en déterminer la granulométrie;

(e) La mesure périodique du charriage.

Voici une brève description des éléments susmentionnés.

(a) *Mesure du débit des sédiments en suspension par intégration selon la profondeur*: La méthode permet de déterminer le débit des sédiments en suspension traversant toute une section transversale d'un cours d'eau, la concentration moyenne des sédiments en suspension dans la section transversale et la granulométrie des sédiments en suspension. C'est un fait connu que la concentration des sédiments en suspension augmente généralement avec la profondeur et qu'elle peut varier d'une rive à l'autre d'un cours d'eau.

Avec la méthode d'incréments de débits égaux (IDE), la mesure du débit des sédiments en suspension se fait en divisant une section transversale d'un cours d'eau en au moins cinq tranches où le débit est égal et en prélevant un échantillon représentatif dans chacune d'elles. Le débit des sédiments en suspension (r) pour chaque tranche se calcule en multipliant le débit (q) par la concentration des sédiments en suspension (c):

$$r = q\ c$$

Le débit des sédiments en suspension (R) pour la section transversale est la somme des débits des sédiments des cinq tranches:

$$R = r\ n = q_1c_1 + q_2c_2 + \ldots + q_nc_n$$

La méthode par intégration sur toute la profondeur est employée pour mesurer la concentration des sédiments en suspension. Elle suppose que l'échantillonneur se remplit à un rythme proportionnel au débit de l'eau et qu'en étant déplacé à une vitesse uniforme sur toute la verticale, il reçoit une partie du mélange eau-sédiments à tous les points de celle-ci.

(b) *Prélèvement d'échantillons uniques de sédiments en suspension sur une verticale choisie*: De tels échantillons, constitués chacun de deux bouteilles, sont prélevés régulièrement à l'aide d'appareils intégrateurs, selon la profondeur ou ponctuels, sur une verticale permanente d'une section transversale. Lorsque la concentration des sédiments est très forte, deux ou trois échantillonnages peuvent être effectués chaque jour, alors qu'un seul échantillon peut être prélevé à quelques jours d'intervalle lorsqu'elle est faible. Au cours des périodes où le débit est extrêmement faible, l'échantillonnage peut être limité à un échantillon toutes les quelques semaine ou tous les quelques mois.

(c) *Mesure du débit des sédiments en suspension par la méthode ponctuelle*: Un nombre limité de mesures du débit des sédiments en suspension sont faites avec cette méthode. On y a recours a) pour vérifier les valeurs du débit mesurées au moyen de la méthode précédente et b) pour obtenir des échantillons en vue de déterminer la granulométrie des sédiments en divers points de la

at different points in the cross section. The point-integrating sediment loads are computed by graphical methods.

The relationship between the suspended sediment concentration of the single vertical samples and the average concentration in the cross section determined from the suspended sediment load measurements is established for some stations. Using this relationship, the sediment concentrations of the single vertical samples are adjusted to reflect the average suspended sediment concentration in the cross section. These average sediment concentrations in the cross sections are plotted, and a smooth curve is drawn through the points to obtain a concentration graph. This graph represents the average suspended sediment concentration for the period of record. The daily mean concentrations are determined by automated procedures using a digitizer interfaced with a Digital minicomputer.

The daily suspended sediment loads are computed on the basis of stream discharges and the collected suspended sediment concentrations. The daily suspended sediment loads are expressed in tonnes per day and are obtained by multiplying the daily mean sediment concentration (mg/L), by the daily mean discharge (m^3/s), and the conversion factor, 0.0864.

(d) *Bed Material Sampling*: In a cross section, bed material samples are usually taken in the same sampling verticals as the suspended sediment samples. Often, additional bed material samples are collected at the water edge, the extreme water level or at other points in the cross section. The total number of bed material samples taken in a cross section usually varies between five and nine.

(e) *Bed Load Measurement*: There are several methods available for measurement of bed load (volumetric method, measurement by samplers, method of tracers, method of constricted cross section, study of sound waves, etc.). The measurement methods should be selected in accordance with river regime.

4. *Total Sediment Load*

Sediment transport may be divided into two categories: sediment maintained in suspension in the stream (suspended load), and sediment being carried along the streambed (bed load). To measure the total sediment load, each of these must be measured separately and then totalled. The total sediment load was not computed for this publication.

5. *Sediment Survey Laboratories*

The Water Resources Branch maintain sediment survey laboratories in New Westminster, British Columbia; Regina, Saskatchewan; Guelph, Ontario; and Moncton, New Brunswick. The laboratories are equipped to perform the following analyses:

(a) determination of sediment concentration by (1) filtration method, (2) evaporation method and (3) determination of total dissolved solids by evaporation method.
(b) particle-size distribution analysis by (1) bottom withdrawal tube method, (2) sieving and (3) hydrometer method.

Determination of the sediment concentration by the evaporation method is carried out by evaporating the water from the settled sediment sample, with the results being corrected for dissolved solids. The quantity of dissolved solids is determined by evaporating a portion of the decanted water of a sample. In the filtration method, the suspended sediment concentration of water samples is determined by utilizing Gooch crucibles with a Reeve Angel 934AH filter and a Millipore AP20 prefilter and a vacuum system.

section transversale. Cette méthode fait appel à des graphiques pour le calcul du débit des sédiments.

Le rapport entre la concentration des sédiments en suspension dans les échantillons prélevés sur une seule verticale et la concentration moyenne dans la section transversale, telle que déterminée à partir des mesures du débit des sédiments en suspension, est établi pour quelques stations. Il permet de corriger les concentrations mesurées à une seule verticale de manière à donner la concentration moyenne dans la section transversale. Les concentrations moyennes ainsi déterminées sont reportées sur un graphique, et une courbe lisse passant par les points marqués est tracée. Le graphique obtenu représente la concentration moyenne des sédiments en suspension pour la période de relevé. Les concentrations moyennes quotidiennes sont déterminées automatiquement à l'aide d'un convertisseur analogique-numérique relié à un mini-ordinateur numérique.

Les valeurs journalières du débit des sédiments en suspension sont calculées à partir du débit du cours d'eau et des concentrations des sédiments en suspension recueillis. Elles sont exprimées en tonnes par jour. On les détermine en multipliant la concentration moyenne journalière des sédiments (mg/L) par le débit moyen journalier (m^3/s) et par un facteur de conversion approprié, 0.0864.

(d) *Échantillonnage des matériaux du lit*: Dans une section transversale, les échantillons des matériaux du lit sont ordinairement prélevés aux mêmes verticales que ceux des sédiments en suspension. Souvent, des échantillons supplémentaires sont pris près des rives, là où le niveau d'eau est extrême et à d'autres points de la section transversale. Leur nombre total pour une section donnée varie ordinairement entre cinq et neuf.

(e) *Mesure du charriage*: La mesure peut se faire par plusieurs méthodes (méthode volumétrique, mesure à l'aide d'échantillonneurs, méthode des traceurs, méthode de la section transversale rétrécie, étude des ondes sonores, etc.). Le choix se fondera sur la nature du régime du cours d'eau.

4. *Débit solide total*

Il y a deux catégories de sédiments: les sédiments maintenus en suspension au sein de l'eau (sédiments en suspension), et les sédiments charriés sur le lit d'un cours d'eau (charriage de fond). Les deux types de sédiments doivent être mesurés séparément et leurs valeurs additionnées si on veut mesurer le débit total des sédiments. Toutefois, on ne l'a pas calculé aux fins de la présente publication.

5. *Laboratoires d'analyse*

La Direction des ressources en eau possède des laboratoires d'analyse des sédiments à New Westminster (Colombie-Britannique), Regina (Saskatchewan), Guelph (Ontario) et Moncton (Nouveau-Brunswick). Les laboratoires disposent des appareils nécessaires pour effectuer les analyses suivantes:

(a) la détermination de la concentration des sédiments par (1) filtration, (2) évaporation, et (3) détermination des matières dissoutes totales par évaporation.
(b) l'analyse granulométrique (1) par extraction des sédiments déposés dans un tube, (2) par l'emploi de tamis et (3) par l'utilisation d'un hydromètre.

La méthode par évaporation consiste à faire évaporer l'eau d'un échantillon de sédiments décanté et à corriger les résultats pour tenir compte des matières dissoutes. La quantité de celles-ci est déterminée en faisant évaporer une partie de l'eau de l'échantillon décanté. Dans la méthode par filtration, on utilise sous vide des creusets de Gooch munis d'un filtre Reeve Angel 934AH et d'un préfiltre Millipore AP20.

Particle-size analysis was carried out for some suspended sediment samples having gross weights in the range of 0.15 to 5 g using the Bottom Withdrawal Tube method. The particle-size distribution of the Bottom Withdrawal Tube method ranges from 0.002 to 1.000 mm. The Sieve analysis method may be used for samples with a large amount of material coarser than 0.062 mm.

The particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)
Clay	0.000 24 - 0.004
Silt	0.004 - 0.062
Sand	0.062 - 2.0
Gravel	2.0 - 64.0

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analyzed in distilled water. Chemical dispersion is not used for native-water analysis.

6. *Accuracy and Reliability of Field Data and Computed Results*

The overall accuracy and degree of reliability of the sediment data is dependent upon many factors. Some of the more important of these are:

(a) accuracy and reliability of streamflow records;
(b) regime of the river;
(c) type of sampling equipment used to collect the suspended sediment samples;
(d) frequency of suspended sediment discharge measurements;
(e) frequency of individual sampling;
(f) quality of the relationship between the average suspended sediment concentration in the cross section and the concentration of the individual samples;
(g) frequency and method of bed material sampling;
(h) frequency and method of bed load measurements;
(i) accuracy and reliability of the laboratory analysis;
(j) selected methods of computation of the suspended sediment discharge;
(k) interpretation and extrapolation of sediment records.

An assessment of the quality of the records can be made by an examination of the occurrence of the symbol (S) on the daily mean concentrations.

In general, data collected during open-water periods are more reliable than those collected during periods of ice conditions or those records obtained by estimation. Further, water level data collected utilizing a water-stage recorder are more reliable and accurate than those using a manual gauge only, especially for small or flashy streams.

Une analyse granulométrique a été effectuée pour certains échantillons de sédiments en suspension ayant un poids brut dans l'intervalle de 0.15 à 5 g par la méthode de la burette (extraction des sédiments déposés, à divers intervalles). La distribution de la taille des particules déterminée par cette méthode varie de 0.002 à 1.000 mm. La méthode de tamisage peut être employée pour les échantillons ayant une forte quantité de particules de taille supérieure à 0.062 mm.

La classification granulométrique qui est utilisée dans la présente publication est conforme aux recommandations faites par l'*American Geophysical Union Subcommittee on Sediment Terminology*. La classification est la suivante:

Classification	Taille (mm)
Argile	0.000 24 - 0.004
Limon	0.004 - 0.062
Sable	0.062 - 2.0
Gravier	2.0 - 64.0

La répartition granulométrique qui est fournie dans cette publication, n'est pas obligatoirement représentative de toutes les particules qui sont transportées par un cours d'eau donné. La plupart des matières organiques sont extraites de l'échantillon qui est ensuite soumis à une dispersion mécanique et chimique avant d'être analysé dans de l'eau distillée. La dispersion chimique ne sert pas à l'analyse de l'eau naturelle.

6. *Exactitude des données et des résultats*

L'exactitude des données sur les sédiments dépend de nombreux facteurs. On peut citer, parmi les plus importants:

(a) l'exactitude des données sur les débits;
(b) le régime d'un cours d'eau;
(c) le type d'appareil d'échantillonnage utilisé pour prélever les échantillons de sédiments en suspension;
(d) la fréquence des mesures du débit des sédiments en suspension;
(e) la fréquence des échantillonnages isolés;
(f) la qualité du rapport entre la concentration moyenne des sédiments en suspension dans une section transversale et la concentration des échantillons isolés;
(g) la fréquence des échantillonnages des matériaux de fond et la méthode utilisée;
(h) la fréquence des mesures du charriage de fond et la méthode utilisée;
(i) l'exactitude des analyses de laboratoire;
(j) les méthodes de calcul du débit des sédiments en suspension;
(k) l'interprétation et l'extrapolation des données sur les sédiments.

La qualité des données peut être évaluée d'après la fréquence d'utilisation du symbole (S), avec les données sur la concentration journalière moyenne.

En général, les données recueillies au cours des périodes d'eau libre sont plus sûres que celles qui sont obtenues au cours des périodes de glaces ou par estimation. De plus, les données sur le niveau des eaux qui sont mesurées à l'aide d'un limnigraphe sont plus certaines et plus exactes que celles qui sont mesurées à l'aide d'une jauge manuelle seulement, surtout dans le cas des petits cours d'eau ou des cours d'eau à crues très rapides.

METHOD OF TABULATION OF SEDIMENT DATA

For stations where the suspended sediment load was obtained, the following data are given where available:

1. The table of *Suspended Sediment Load* includes the daily mean discharge in cubic metres per second, the daily mean concentration in milligrams per litre, and the daily suspended sediment load in tonnes per day. The total monthly discharge and total monthly sediment load are also given for each month of record.

   For stations where the sediment load in tonnes per day are produced for complete or partial years, the *Total Suspended Load* for the period is given in the descriptive information.

   For stations where only suspended sediment concentrations are obtained, the table of *Suspended Sediment Load* will not be given.

   Additional descriptive information about the sediment station is also given and will indicate the following, where applicable.

   Location – the latitude and longitude co-ordinates of the location of the gauge are given. For stations where the gauge is located an appreciable distance from the discharge measurement section, these co-ordinates give the location of the discharge measurement section.

   Drainage area – refers to that area enclosed by a topographic divide such that direct surface runoff from precipitation would drain by gravity into the stream upstream from the location of the station.

   Type of Flow – where the flow is known to be natural, this is indicated. The flow of water in many river systems is affected by upstream regulation. In some cases, the extent of this regulation is not known and therefore is not indicated. However, where the regulation is known to be "appreciable", this is indicated as well as the year that the regulation began, if known.

   Type of Gauge – refers to the installation or method used to obtain water level or discharge data:

   (a) Manual – a non-recording type of gauge from which observations of stage normally are obtained once daily.

   (b) Recording – a water-stage recorder from which continuous water levels are obtained on an analog chart. For most International Gauging Stations located in the United States, water level records are obtained utilizing a digital recorder.

   International Gauging Station – on waters adjacent to the international boundary, certain gauging stations have been

PRÉSENTATION DES TABLEAUX DE DONNÉES SUR LES SÉDIMENTS

Pour les stations de mesure du débit des sédiments en suspension, les données suivantes sont présentées, pour autant qu'elles sont disponibles:

1. Le tableau concernant le *débit des sédiments en suspension* (The table of Suspended Sediment Load) donne le débit journalier moyen de l'eau, en mètres cubes par seconde, la concentration journalière moyenne, en milligrammes par litre, et le débit journalier des sédiments en suspension, en tonnes par jour. Chaque mois les données indiquent également les débits mensuels totaux de l'eau et des sédiments.

   Dans le cas des stations où le débit des sédiments, en tonnes par jour, est fourni pour une année complète ou une partie de l'année, le total pour la période est indiqué.

   Dans le cas des stations où seule la concentration des sédiments en suspension est obtenue, ce tableau est absent.

   Des renseignements descriptifs additionnels au sujet de la station sont également présentées. On peut y apporter les précisions suivantes:

   Emplacement (Location) – La latitude et la longitude de la station de jaugeage sont indiquées. Dans les cas où l'équipement de mesure est situé à une bonne distance de la section où le jaugeage est effectué, on indique les coordonnées de cette section.

   Superficie du bassin versant (Drainage area) – Désigne la zone délimitée par une ligne de faîte de sorte que l'écoulement de surface direct provenant des précipitations est entraîné par gravité vers le cours d'eau, en amont de la station.

   Type de débit (Type of Flow) – Un débit reconnu comme naturel est indiqué. Le débit de nombreux réseaux hydrographiques est modifié par une régularisation effectuée en amont. Dans certains cas, l'importance de cette régularisation n'est pas connue, et elle n'est donc pas indiquée. Cependant, quand on sait que la régularisation est d'une certaine importance, on l'indique, ainsi que l'année où elle a débuté (si elle est connue).

   Type de jauge (Type of Gauge) – Il s'agit des jauges ou des méthodes de jaugeage utilisées pour obtenir les données sur le niveau ou le débit d'un cours d'eau.

   (a) *Manuel* (Manual) – Indique qu'un appareil non enregistreur est employé pour obtenir normalement une fois par jour les données sur le niveau et le débit du cours d'eau.
   (b) *Enregistreuse* (Recording) – Indique qu'un limnigraphe permet de mesurer de façon continue le niveau des eaux qui est tracé sur un graphique. La plupart des stations internationales de jaugeage des États-Unis obtiennent les données sur le niveau des eaux à l'aide d'un enregistreur numérique.

   Station internationale de jaugeage (International Gauging Station) – Dans les eaux contiguës aux frontières, on a

designated as "International" and records are approved jointly. Differences between figures published herein and corresponding figures in United States Water Supply Papers are due to variations in automated data processing techniques.

Contributed Data – if data were supplied in their entirety or partially by an outside agency, the name of this co-operating agency is given.

Remarks – contains a statement pertaining to the sediment sample collection.

2. The table of *Instantaneous Suspended Sediment Concentration* for depth-integrating samples includes the following: Date and Time of the sample collection; Water Temperature; Instantaneous Discharge at time of sampling, (if not available the daily mean discharge is given and indicated by a symbol); Single Sampling Vertical location; Dissolved Solids; Percent Sand, Silt and Clay; Type of Sampler used. The particle-size distribution of Sand, Silt and Clay, in percent is given where available.

The Single Sampling Vertical Location is defined by many symbols, which are as follows, where applicable:

DIGITS - 5, 14, 130, etc., is the distance in metres from the initial point
WERB - Water's Edge RIGHT Bank
WELB - Water's Edge LEFT Bank
1QRB - One-quarter the distance FROM the RIGHT Bank
3QRB - Three-quarters the distance FROM the RIGHT Bank
1QLB - One-quarter the distance FROM the LEFT Bank
3QLB - Three-quarters the distance FROM the LEFT Bank
MID - MID STREAM
MULT - Composite sediment measurement

For the suspended sediment measurements, the Date; Time; Water Temperature at time of sampling; Discharge computed for each sampling panel; Concentration; Sampling Vertical; Dissolved Solids; Percent Sand, Silt and Clay; Type of Sampler used; and the Particle-size distribution of the Sand, Silt and Clay, in percent is given where available.

3. The table of *Point Integrating Particle-size of Suspended Sediment* includes the following: Date and Time of the sample collection; Water Temperature; Panel Discharge for each sampling vertical; Sampling Vertical; Depth of Sample; Concentration of Sample in milligrams per litre; Dissolved Solids, in milligrams per litre, and the Particle-size distribution in percent of the Sand, Silt and Clay are also given.

désigné certaines stations comme «internationales», et les données obtenues sont approuvées par les pays concernés. Les différences entre les chiffres publiés dans la présente publications et dans les *United States Water Supply Papers* sont dues à des variantes dans les techniques de traitement automatique des données.

Données fournies (Contributed Data) – Lorsqu'un organisme extérieur a fourni toutes les données ou une partie des données, son nom est indiqué.

Remarques (Remarks) – Renseignements au sujet du prélèvement des échantillons de sédiments.

2. Le tableau des *concentrations instantanées de sédiments en suspension* (The table of Instantaneous Suspended Sediment Concentration) pour les échantillons obtenus par intégration selon la profondeur comprend: la date et l'heure de prélèvement; la température de l'eau; son débit instantané au moment de l'échantillonnage (s'il n'est pas connu, le débit journalier moyen, avec symbole); l'emplacement de la verticale d'échantillonnage; la concentration des matières dissoutes; les pourcentages de sable, de limon et d'argile; le type d'échantillonneur employé; et la granulométrie du sable, du limon et de l'argile, en pourcentage des particules est donnée lorsqu'elle est disponible.

Le site vertical d'échantillonnage unique est défini par plusieurs symboles dont les suivants dans certains cas :

CHIFFRE - 5, 14, 130, etc., désigne la distance en mètres à partir du point initial
WERB - Bord de l'eau, rive DROITE
WELB - Bord de l'eau, rive GAUCHE
1QRB - Un quart de la distance À PARTIR de la rive DROITE
3QRB - Trois quarts de la distance À PARTIR de la rive DROITE
1QLB - Un quart de la distance À PARTIR de la rive GAUCHE
3QLB - Trois quarts de la distance À PARTIR de la rive GAUCHE
MID - MI-DÉBIT
MULT - Mesure des sédiments mixtes

Pour les mesures des sédiments en suspension, la date, l'heure, la température de l'eau au moment de l'échantillonnage, le débit calculé pour chaque tranche de la section d'échantillonnage, la concentration et la verticale d'échantillonnage, la concentration des matières dissoutes; les pourcentages de sable, de limon et d'argile; le type d'échantillonneur employé; et la granulométrie du sable, du limon et de l'argile, en pourcentage des particules est donnée lorsqu'elle est disponible.

3. Le tableau de la *granulométrie des échantillons ponctuels et intégrés des sédiments en suspension* (The table of Point Integrating Particle-size of Suspended Sediment) comprend: la date et l'heure de prélèvement de l'échantillon, la température de l'eau, le débit de la tranche de la section pour chaque verticale d'échantillonnage, la verticale d'échantillonnage, la profondeur de l'échantillon, la concentration des échantillons, en milligrammes par litre, la concentration des matières dissoutes, en milligrammes par litre, et granulométrie du sable, du limon et de l'argile.

4. The table of *Bed Load Particle-size* includes the following: Date and Time of the sample collection; Panel Discharge; Sampling Vertical and the Type of Sampler used in the collection of the sample and the Particle-size distribution, in percent, for each sample of bed load collected.

5. The table of *Bed Material Particle-size* includes the following: Date and Time of the sample collection; Panel Discharge; Sampling Vertical and the Type of Sampler used in the collection of the sample and the Particle-size distribution, in percent, for each sample of bed material collected.

6. The table of *Historical Sediment Data Summary* gives the following, for the period of record, where applicable.

   (a) Record Summary
   (b) Type of Sampling
   (c) Sampled Concentration, maximum and minimum
   (d) Suspended Sediment Load, maximum daily and the total, for the period, in tonnes
   (e) Summary, including mean load, the historical mean load and the standard error of the mean in percent.

(a) The *Record Summary* gives the months of record that data are available. If the complete month is on file the symbol (C) is shown, while partial months of data are indicated by the symbol (P). Months with no data on file are indicated by (-).

(b) The *Type of Sampling* indicates the type of sampling method used to collect the sediment samples during the period of operation. If the samples were collected by manual methods this is indicated by "MANUAL." If the samples were collected by a pump sampler or some other automatic method this is indicated by "AUTO." If both manual and automatic sampling methods were used this is indicated by "DUAL."

(c) The *Sampled Concentration* gives the maximum and minimum concentration, in milligrams per litre, and the date of collection for each year of record. The extreme recorded for the period of record is indicated by an asterisk (*). If more than one maximum or minimum, of the same value, occurred during the year only the date of the first occurrence is identified by the asterisk.

(d) The *Suspended Sediment Load* gives the maximum daily load, in tonnes, and the date of occurrence. The extreme recorded is indicated by an asterisk (*). The Total for the Period gives the total load for the period or year, in tonnes. The extreme recorded is also indicated by an asterisk (*). If more than one maximum or minimum, of the same value, occurred during the year only the date of the first occurrence is identified by the asterisk. A load which has been revised since the previous publication is marked with the symbol (R) for Revision.

4. Le tableau de la *granulométrie des sédiments charriés* (The table of Bed Load Particle-size) comprend: la date et l'heure de prélèvement de l'échantillon, le débit de la tranche de la section, la verticale d'échantillonnage et le type d'échantillonneur employé et le pourcentage des particules pour chaque échantillon recueilli du charriage.

5. Le tableau de la *granulométrie des matériaux du lit* (The table of Bed Material Particle-size) comprend: la date et l'heure de prélèvement de l'échantillon, le débit de la tranche de la section, la verticale d'échantillonnage et le type d'échantillonneur employé et le pourcentage des particules pour chaque échantillon recueilli.

6. Le tableau du *sommaire chronologique des données sur les sédiments* (The table of Historical Sediment Data Summary) donne, pour la période pour laquelle les données sont disponibles, les renseignements suivants lorsque de telles données existent:

   (a) Le sommaire du relevé
   (b) Le type d'échantillonnage
   (c) Les concentrations mesurées, maximum et minimum
   (d) Le débit des sédiments en suspension, maximum quotidien et le total pour la période en tonnes
   (e) Résumé, comprend le débit moyen, le débit moyen chronologique et l'erreur type de la moyenne en pourcentage.

(a) Le *sommaire du relevé* donne les mois de relevé pour lesquels les données sont disponibles. Le symbole (C) indique que les données sont disponibles pour tout le mois. Le symbole (P) indique que ces données ne sont disponibles que pour une partie du mois. Enfin, on indique par (-) les mois qui n'ont pas de données.

(b) Le *type d'échantillonnage* indique le type de méthode d'échantillonnage que l'on utilise dans le prélèvement des échantillons de sédiments pendant la période d'exploitation. Si le prélèvement des échantillons se fait par des méthodes manuelles, on indique «MANUEL». Si le prélèvement des échantillons se fait au moyen d'échantillonneur à pompe ou par quelque autre méthode automatique, on indique «AUTO». Si on utilise à la fois des méthodes d'échantillonnage manuelles et automatiques, on indique «DOUBLE».

(c) Pour les *concentrations mesurées* (Sampled Concentration), on donne la concentration maximale et la concentration minimale, en milligrammes par litre, et leur date d'obtention pour chaque année de relevé. La valeur extrême enregistrée est indiquée par un astérisque (*). Si la valeur du maximum ou du minimum a été mesurée plus d'une fois pendant l'année, on signale, par l'astérisque, seulement la date de la première mesure.

(d) Sous le *débit des sédiments en suspension* (Suspended Sediment Load), on donne le débit journalier maximal, en tonnes, et sa date de mesure. Le débit extrême enregistré est indiqué par un astérisque (*). Le débit total pour la période ou pour l'année est indiqué. La valeur extrême est également signalée par un astérisque (*). Si la valeur du maximum ou du minimum a été mesurée plus d'une fois pendant l'année, on signale, par l'astérisque, seulement la date de la première mesure. La lettre R indique qu'une valeur du débit a été révisée depuis la dernière publication.

(e) The *Summary* gives the *Mean Load* and the *Historical Mean Load* in tonnes.

The *Standard Error of the Mean* % is calculated using the following equations:

$$SEM = \frac{S}{\bar{x}\sqrt{n}} \times 100\%$$

and

$$S = \sqrt{\frac{\Sigma (x - \bar{x})^2}{n - 1}}$$

where SEM is the Standard Error of the Mean.

- S is the Standard Deviation of the annual mean loads.
- x is the annual Mean Load variable.
- $\bar{x}$ is the Historical Mean Load or the arithmetic mean of the annual Mean Loads.
- n is the number of years for which there is an annual Mean Load.

For stations with only instantaneous samples, this table will not include the *Suspended Sediment Load* or the statistical information in the *Summary*.

(e) Le *résumé* donne le *débit moyen* et le *débit moyen chronologique*, en tonnes.

L'*erreur-type de la moyenne* % (Standard Error of the Mean), est calculée à l'aide des équations suivantes:

$$SEM = \frac{S}{\bar{x}\sqrt{n}} \times 100\%$$

et

$$S = \sqrt{\frac{\Sigma (x - \bar{x})^2}{n - 1}}$$

où SEM est l'erreur type de la moyenne.

- S est l'écart type des débits moyens annuels.
- x est la variable du débit moyen annuel.
- $\bar{x}$ est le débit moyen chronologique ou la moyenne arithmétique des débits moyens annuels.
- n est le nombre d'années où il y a un débit moyen annuel.

Dans le cas des stations ne prélevant que des échantillons instantanés, ce tableau ne donnera pas le *débit des sédiments en suspension* ni les données statistiques du *résumé*.

CO-OPERATION AND ACKNOWLEDGMENTS

Co-operative undertakings with other agencies form an important part of the activities of the Water Survey of Canada. Close co-operation has been maintained with public agencies and private organizations concerned with water resources. Data have been mutually exchanged and suspended sediment collection operations have been facilitated by the assistance received from a number of organizations.

On waters adjacent to the International Boundary, certain sediment stations are maintained by Canada (or the United States) under agreement with the United States (or Canada) and the records are collected and compiled in a manner equally acceptable to both countries. These stations are designated as "International Gauging Stations" in this publication.

For the valuable assistance and co-operation received in obtaining sediment survey records, the Water Survey of Canada is indebted to other federal and provincial organizations which are noted as contributing agencies in the summary for the year. A list of these agencies may be found in the *Sediment Data Reference Index*.

COOPÉRATION ET REMERCIEMENTS

Le travail entrepris en coopération avec d'autres organismes représente une partie importante des activités de la Division des relevés hydrologiques du Canada. On a maintenu une étroite collaboration avec les organismes, publics ou privés, qui s'intéressent aux ressources en eau. On a échangé des données sur les sédiments, et l'assistance fournie par certains organismes a facilité les opérations d'échantillonnage des sédiments en suspension.

Dans les eaux adjacentes à la frontière internationale, les stations dépendent du Canada ou des États-Unis selon l'accord intervenu entre les deux pays, et les relevés sont faits et compilés de façon à satisfaire les deux pays. Ces stations sont nommées «Stations internationales de jaugeage» dans la présente publication.

La Division des relevés hydrologiques du Canada est redevable à plusieurs organismes fédéraux et provinciaux, dont les noms apparaissent dans le sommaire de l'année, de l'aide et de la collaboration qu'ils lui ont apportées pour l'obtention des données sur les sédiments. On trouvera également les noms des organismes qui ont fourni des données dans l'*Index de référence des données sur les sédiments*.

MICROFICHE

Sediment data are available in metric units on microfiche, upon request. The data are stored in station number order by province. There are 270 frames per microfiche at 48X reduction; there is a visible heading showing the fiche number, type of data, province, beginning and ending station number and year of data, and the month/year the fiche was created. The last frame is an index of the contents of that fiche.

MICROFICHE

Les données sur les sédiments sont disponibles sur microfiche en unités métriques. Ces données sont emmagasinées par ordre de numéro de station et par province. Chaque microfiche renferme 270 pages réduites de 48X. L'en-tête indique le numéro de la fiche, le genre de données, la province, le numéro de la première et de la dernière station, la première et la dernière année des données ainsi que le mois et l'année de création de la fiche. La dernière image donne l'index de la fiche.

DEFINITION OF TERMS

The following definitions are given to clarify the terms used in this publication:

Automatic pump sample is an individual water-sediment mixture pumped from a fixed point in a stream.

Bed load is that material moving in almost continuous contact with the streambed, being rolled or pushed along the bottom by the force of the water.

Bed material is the sediment mixture of which the streambed is composed.

Daily load is the suspended sediment load expressed in tonnes for a particular day. The daily load is obtained by multiplying the daily mean sediment concentration (mg/L) by the daily mean discharge (m^3/s) and the conversion factor, 0.0864.

Daily mean concentration is a time-weighted mean value and is computed from a manually constructed concentration curve. The mean concentration value may be determined arithmetically or graphically. The arithmetic mean is obtained either by (1) selecting values from the concentration graph that represents uniform intervals of time and taking the arithmetic average or by (2) selecting values from the graph that represent unequal intervals of time and weighing these values by the time intervals represented by the concentrations. For graphical explanation refer to *Office Procedures for Sediment Data Computations* and for the automated graphical explanation refer to *Automated Hydrometric Computation Procedures*.

Depth-integrated sediment sample is a suspended sediment sample collected at a single vertical in a cross section in a sampler moving vertically at a constant transit rate and represents an average sample for that part of the depth ranging from the water surface to about nine centimetres above the streambed.

Instantaneous suspended sediment sample is a sample collected at a fixed vertical in a river cross section.

Measured suspended sediment discharge is the suspended sediment discharge that can be computed from stream discharge and the concentration of sediment determined from depth-integrated sediment samples.

Particle-size analysis is the process of determining the size distribution of particles in a sediment sample.

Point-integrated sediment sample is a sample of the water-sediment mixture taken over a specified period of time at a fixed point and depth in a river cross section.

DÉFINITION DES TERMES

Les définitions suivantes sont présentées afin de faciliter la compréhension des termes utilisés dans la présente publication:

Échantillonnage automatique à l'aide d'une pompe (Automatic pump sample): Prélèvement d'un mélange de sédiments et d'eau au moyen d'une pompe fonctionnant automatiquement, en un point précis d'un cours d'eau.

Charriage (Bed load): Matières roulées ou poussées sur le fond sous l'action de l'eau, mais restant en contact presque permanent avec le fond.

Matériau du lit (Bed material): Mélange de sédiments composant le lit d'un cours d'eau.

Débit journalier des sédiments en suspension (Daily load): Débit des sédiments en suspension exprimé en tonnes par jour, pour une journée donnée. On l'obtient en multipliant la concentration journalière moyenne des sédiments (mg/L) par le débit journalier moyen de l'eau (m^3/s) et le facteur de conversion 0.0864.

Concentration journalière moyenne (Daily mean concentration): Moyenne pondérée en fonction du temps, calculée à partir d'une courbe de la concentration établie manuellement. La valeur de la concentration moyenne peut être déterminée arithmétiquement ou graphiquement. Pour la déterminer arithmétiquement, on peut, soit choisir sur la courbe des valeurs représentant des intervalles uniformes de temps et faire la moyenne arithmétique, soit choisir sur cette courbe des valeurs qui représentent des intervalles inégaux de temps et pondérer ces valeurs en fonction des intervalles de temps correspondants. En ce qui concerne les méthodes graphiques, consulter *Méthodes de bureau pour les calculs de données sur les sédiments* et, pour la méthode automatisée, *Automated Hydrometric Computation Procedures*.

Échantillon intégré sur toute la profondeur (Depth integrated sediment sample): Échantillon des sédiments en suspension prélevé sur une verticale précise d'une section transversale d'un cours d'eau à l'aide d'un échantillonneur se déplaçant verticalement à une vitesse constante; il représente un échantillon moyen des matières en suspension entre la surface de l'eau et environ 9 cm du fond.

Échantillon instantané de sédiments en suspension (Instantaneous suspended sediment sample): Échantillon prélevé à une verticale précise d'une section transversale d'un cours d'eau.

Débit mesuré des sédiments en suspension (Measured suspended sediment discharge): Débit des sédiments en suspension qui peut être calculé à partir du débit du cours d'eau et de la concentration des sédiments déterminée à partir d'échantillons intégrés sur toute la profondeur.

Analyse granulométrique (Particle-size analysis): Détermination de la répartition de la taille des particules dans un échantillon de sédiments.

Échantillon ponctuel et intégré (Point-integrated sediment sample): Échantillon constitué d'un mélange d'eau et de sédiments, prélevé au cours d'une période de temps donnée en un point précis d'une section transversale d'un cours d'eau et à une profondeur donnée.

Sediment is fragmental material which has deposited, eroded or transported by a flowing stream.

Sediment hydrograph is a graph showing the variation of suspended sediment concentration or sediment discharge with respect to time.

Single sample is a sample taken at a selected permanent vertical in a cross section. Two bottles of water-sediment mixture make up each single sample.

Single sampling vertical is a selected permanent vertical in a cross section in which single suspended sediment samples are collected.

Suspended sediment is sediment that moves in suspension in water either as a colloid or through the influence of the upward component of turbulent currents.

Suspended sediment concentration is the ratio of the weight of dry solids in a water-sediment mixture to the volume of the mixture. The units of this ratio are "milligrams per litre" (mg/L).

Suspended sediment load is the quantity of suspended sediment transported through a cross section per unit of time.

Total sediment load is the sum of the suspended sediment load and the bed load.

Unmeasured sediment load is the difference between total sediment load and measured suspended sediment load.

DEFINITION OF SYMBOLS

Symbols are located at the bottom of the data sets under the headings Time, Discharge, Concentration, and Dissolved Solids. The symbols with their definitions are listed below.

Time Symbol

E – Estimated – indicates estimated data. It indicates that the time of sample collection is estimated by some indirect method or comparison with other stream data.

Discharge Symbol(s)

A – Manual Gauge – indicates that one or more manual gauge observations per day were obtained and used as the mean for the day for a gauging station equipped with a recording gauge. This symbol is used during open-water periods only.

B – Ice Conditions – indicates the presence of ice at the gauging station. For gauging stations where discharge data are obtained, this symbol indicates that the presence of ice has affected the stage-discharge relationship.

E – Estimated – indicates estimated data. It indicates that the values recorded are estimated by some indirect method such as interpolation, extrapolation, comparison with other streams or by comparison with meteorological data.

Sédiments (Sediment): Matières fragmentaires qui ont été déposées, érodées ou transportées par un cours d'eau.

Hydrogramme des sédiments (Sediment hydrograph): Graphique représentant la variation de la concentration des sédiments en suspension ou du débit des sédiments en fonction du temps.

Échantillon unique (Single sample): Échantillon prélevé sur une verticale permanente particulière dans une section transversale. Deux bouteilles du mélange eau-sédiments constituent un seul échantillon.

Verticale d'échantillonnage unique (Single sampling vertical): Verticale permanente d'une section transversale où des échantillons uniques de sédiments en suspension sont prélevés.

Sédiments en suspension (Suspended sediment): Matériaux qui se déplacent au sein de l'eau, soit sous forme colloïdale, soit sous l'influence des forces ascendantes des courants turbulents.

Concentration des sédiments en suspension (Suspended sediment concentration): Rapport entre le poids des matières solides sèches contenues dans un mélange eau-sédiments et le volume du mélange. Les unités employées sont les «milligrammes par litre» (mg/L).

Débit des sédiments en suspension (Suspended sediment load): Quantité de sédiments en suspension transportés par unité de temps à travers une section transversale d'un cours d'eau.

Débit total des sédiments (Total sediment load): Somme du débit des sédiments en suspension et du débit charrié.

Débit non mesuré des sédiments (Unmeasured sediment load): Différence entre le débit total des sédiments et le débit mesuré des sédiments en suspension.

DÉFINITION DES SYMBOLES

Les symboles figurent au bas des séries de données et sont traités sous les rubriques Temps, Débit, Concentration, Matières solides en solution. Ces symboles avec leurs définitions sont donnés dans la liste ci-après.

Symbole du temps :

E – Estimative – Indique des données estimatives, c'est-à-dire que l'heure de prélèvement de l'échantillon est évaluée de façon indirecte ou par comparaison avec d'autres données sur les cours d'eau.

Symbole(s) du débit :

A – Turbidisonde simple – Indique qu'on a effectué à une station de jaugeage dotée d'une turbidisonde enregistreuse au moins une observation par jour à l'aide d'une turbidisonde simple et qu'on s'en est servi comme moyenne pour la journée en question. Le symbole n'est employé qu'au cours des périodes d'eau libre.

B – Glaces – Indique la présence de glaces à la station de jaugeage, qui ont faussé la relation hauteur-débit.

E – Estimative – Indique des données estimatives, c'est-à-dire que les valeurs enregistrées sont évaluées de façon indirecte, par exemple par interpolation, extrapolation, ou par comparaison avec d'autres cours d'eau ou avec des données météorologiques.

H – Daily Mean Discharge – is the mean discharge for a particular day, usually referred to as the "daily mean discharge".

V – Daily Mean; Manual Gauge – is the mean discharge for a particular day and indicates that one or more manual gauge observations per day were obtained and used as the mean for the day.

W – Daily Mean; Ice Conditions – is the mean discharge for a particular day and indicates that the presence of ice has affected the stage-discharge relationship.

Y – Daily Mean; Estimated – is the mean discharge for a particular day and indicates that the value has been estimated by some indirect method.

Concentration Symbol(s)

B – Split vertical sample Bottom portion only – indicates that the concentration represents a sample collected from the bottom portion of a split vertical sample.

C – Coarse Material Present – indicates that during the laboratory analysis coarse material (sand) was observed in the sediment sample.

F – Sample Bottle Filled – indicates that during the laboratory analysis it was observed that the sample bottle had been filled to capacity.

G – Organic Material Present – indicates that during the laboratory analysis it was observed that organic material was collected in the sample bottle.

T – Split vertical sample Top portion only – indicates that the concentration represents a sample collected from the top portion only of a split vertical sample.

Single Vertical Symbol(s)

M – Sediment measurement vertical – indicates that the sampling vertical is one of several, usually five, and represents a panel width. The instantaneous discharge represents the flow for a panel width.

X – Sampling vertical not at the regular single vertical – indicates that a sample was collected at a location, in a cross-section, which is not at the regular single vertical. The location of the regular single vertical is given at the bottom of the Instantaneous Suspended Sediment data.

Z – Sediment measurement vertical not at the regular measurement cross-section – indicated that a suspended sediment measurement was collected in a cross-section which is not the regular measurement corss-section.

Note: If no symbol is present the samples have then been collected at the regular Single Vertical.

H – Débit journalier moyen – Débit moyen pour une journée donnée, ordinairement appelé «débit journalier moyen».

V – Débit journalier moyen; turbidisonde simple – Débit moyen pour une journée donnée; indique qu'on a effectué au moins une observation par jour et qu'on s'en est servi comme moyenne pour la journée en question.

W – Débit journalier moyen; glaces – Débit moyen pour une journée donnée; indique que la présence de glaces a faussé la relation hauteur-débit.

Y – Débit journalier moyen; estimative – Débit moyen pour une journée donnée; indique que la valeur a été évaluée de façon indirecte.

Symbole(s) de la concentration :

B – Échantillon fractionné pris à la verticale, partie inférieure seulement – Indique que la concentration réfère à un échantillon prélevé dans la partie inférieure d'un échantillon fractionné pris à la verticale.

C – Sable grossier présent – Indique qu'au cours de l'analyse en laboratoire on a observé du sable grossier dans un échantillon de sédiments.

F – Flacon d'échantillonnage rempli – Indique qu'au cours de l'analyse en laboratoire on a observé que le flacon d'échantillonnage avait été complètement rempli.

G – Substance organique présente – Indique qu'au cours de l'analyse en laboratoire on a observé qu'une substance organique a été prélevée dans le flacon d'échantillonnage.

T – Échantillon fractionné pris à la verticale, partie supérieure seulement – Indique que la concentration réfère à un échantillon prélevé dans la partie supérieure seulement d'un échantillon fractionné pris à la verticale.

Symbole(s) de la verticale unique :

M – Verticale de mesure des sédiments – Indique que la verticale d'échantillonnage est l'une de plusieurs verticales, en général cinq, et qu'elle représente la dimension d'une tranche. Le débit instantané représente le débit relatif à la dimension d'une tranche.

X – Verticale d'échantillonnage à l'extérieur de la verticale unique habituelle – Indique qu'un échantillon a été prélevé à un endroit, dans une section transversale, mais à l'extérieur de la verticale unique habituelle. L'endroit de la verticale unique habituelle est donné à la fin des données sur les sédiments en suspension instantanés.

Z – Verticale de mesure des sédiments, à l'extérieur de la section transversale de mesure habituelle – Indique qu'une mesure de sédiments en suspension a été prise dans une section transversale à l'extérieur de la section transversale de mesure habituelle.

Note : S'il n'y a pas de symbole, cela indique que les échantillons ont été prélevés à la verticale unique habituelle.

EQUIVALENTS OF MEASURE

The following list of convenient equivalents of measure includes the relationship between imperial units and the International System of Units (SI).

1 inch equals 2.54 cm (centimetres)
1 foot equals 0.3048 m (metre)
1 statute mile equals 1.6093 km (kilometres)

1 cm (centimetre) equals 0.393 70 inch
1 m (metre) equals 3.2808 feet
1 km (kilometre) equals 0.621 37 mile

1 acre equals 43 560 square feet
1 acre equals 0.404 69 ha (hectare)
1 square mile equals 640 acres
1 square mile equals 2.5900 km^2 (square kilometres)
1 square mile equals 259.0 ha (hectares)

1 ha (hectare) equals 10 000 m^2 (square metres)
1 ha (hectare) equals 2.4710 acres
1 km^2 (square kilometre) equals 0.386 10 square mile

1 cubic foot equals 6.2288 imperial gallons
1 imperial gallon equals 4.546 09 L (litres)
1 imperial gallon equals 1.2010 U.S. gallons
1 U.S. gallon equals 0.133 68 cubic foot
1 cubic foot equals 0.028 317 m^3 (cubic metre)
1 m^3 (cubic metre) equals 35.315 cubic feet
1 dam^3 (cubic decametre) equals 1000 m^3 (cubic metres)
1 dam^3 (cubic decametre) equals 1 mm (millimetre) over 1 km^2 (square kilometre)

1 cubic foot per second for one day equals 1.9835 acre-feet
1 cubic foot per second for one day covers one square mile to a depth of 0.037 19 inch
1 acre-foot equals 1.2335 dam^3 (cubic decametres)
1 m^3/s (cubic metre per second) for one day equals 86.4 dam^3 (cubic decametre)
1 m^3/s (cubic metre per second) for one day covers one square kilometre to a depth of 0.0864 m (metre)

1 foot per second equals 0.6818 mile per hour
1 mile per hour equals 1.467 feet per second
1 m/s (metre per second) equals 3.6 km/h (kilometre per hour)
1 km/h (kilometre per hour) equals 0.2778 m/s (metre per second)

1 cubic foot per second equals 0.028 317 m^3/s (cubic metre per second)
1 m^3/s (cubic metre per second) equals 35.315 cubic feet per second

1 pound equals 0.453 59 kg (kilogram)
1 kg (kilogram) equals 2.2046 pounds

1 short ton (2000 pounds) equals 0.907 18 t (tonne)
1 t (tonne) equals 2204.6 pounds

degrees Celsius = 5/9 (degrees Fahrenheit - 32)
degrees Fahrenheit = 9/5 (degrees Celsius) + 32

ÉQUIVALENCES DES UNITÉS DE MESURE

Voici une liste des unités de mesure impériales et leurs équivalences dans le Système international d'unités (SI).

1 pouce vaut 2.54 cm (centimètres)
1 pied vaut 0.3048 m (mètre)
1 mille terrestre vaut 1.6093 km (kilomètre)

1 cm (centimètre) vaut 0.393 70 pouce
1 m (mètre) vaut 3.2808 pieds
1 km (kilomètre) vaut 0.621 37 mille

1 acre vaut 43 560 pieds carrés
1 acre vaut 0.404 69 ha (hectare)
1 mille carré vaut 640 acres
1 mille carré vaut 2.5900 km^2 (kilomètres carrés)
1 mille carré vaut 259.0 ha (hectares)

1 ha (hectare) vaut 10 000 m^2 (mètres carrés)
1 ha (hectare) vaut 2.4710 acres
1 km^2 (kilomètre carré) vaut 0.386 10 mille carré

1 pied cube vaut 6.2288 gallons impérials
1 gallon impérial vaut 4.546 09 L (litres)
1 gallon impérial vaut 1.2010 gallon américain
1 gallon américain vaut 0.133 68 pied cube
1 pied cube vaut 0.028 317 m^3 (mètre cube)
1 m^3 (mètre cube) vaut 35.315 pieds cubes
1 dam^3 (décamètre cube) vaut 1000 m^3 (mètres cubes)
1 dam^3 (décamètre cube) vaut 1 mm (millimètre) qui couvre 1 km^2 (kilomètre carré)

1 pied cube par seconde pendant un jour vaut 1.9835 acre-pied
1 pied cube par seconde pendant un jour couvre un volume d'un mille carré par 0.037 19 pouce
1 acre-pied vaut 1.2335 dam^3 (décamètre cube)
1 m^3/s (mètre cube par seconde) pour un jour vaut 86.4 dam^3 (décamètres cubes)
1 m^3/s (mètre cube par seconde) pour un jour couvre un kilomètre carré à une profondeur de 0.0864 m (mètre)

1 pied par seconde vaut 0.6818 mille par heure
1 mille par heure vaut 1.467 pied par seconde
1 m/s (mètre par seconde) vaut 3.6 km/h (kilomètres par heure)
1 km/h (kilomètre par heure) vaut 0.2778 m/s (mètre par seconde)

1 pied cube par seconde vaut 0.028 317 m^3/s (mètre cube par seconde)
1 m^3/s (mètre cube par seconde) vaut 35.315 pieds cubes par seconde

1 livre vaut 0.453 59 kg (kilogramme)
1 kg (kilogramme) vaut 2.2046 livres

1 tonne courte (2000 livres) vaut 0.907 18 t (tonne)
1 t (tonne) vaut 2204.6 livres

degrés Celsius = 5/9 (degrés Fahrenheit - 32)
degrés Fahrenheit = 9/5 (degrés Celsius) + 32

REVISIONS

A number of corrections or revisions have been made to previously published data. Many of these were required because of typographical or computational errors which were exposed when the data were stored on magnetic tape and monthly means were re-calculated by computer. Other errors were discovered or different interpretations of basic data were made during the systematic review of historical streamflow data presently underway.

Revisions to daily discharges or sediment data are not published at present. However, those stations where a systematic review has been conducted are identified in the Surface Water Data Reference Index publication. The Historical Streamflow Summary publications contain revisions to monthly and annual mean discharges, and annual extremes of discharge. Revisions, corrections or additions made to discharges and sediment after January 1, 1980, are indicated by an "R" symbol in the data summaries. Detailed information on revisions to historical data is available from the appropriate Regional Chief.

RÉVISIONS

On a corrigé ou révisé des données déjà publiées. Il a été nécessaire d'effectuer plusieurs corrections, car on a relevé des erreurs typographiques ou de calcul lorsqu'on a enregistré les données sur rubans magnétiques et qu'on a recalculé les moyennes mensuelles à l'aide d'un ordinateur. On a aussi relevé d'autres erreurs ou fait des interprétations différentes de certaines données de base au cours de la révision systématique des données historiques sur le débit, actuellement en cours.

Les corrections apportées aux débits journaliers ou aux données sur les sédiments ne sont pas publiées, du moins pour le moment. Cependant, les stations où on a effectué une révision systématique sont indiquées dans l'*Index de référence des données sur les eaux de surface*. Les publications intitulées *Sommaire chronologique de l'écoulement* contiennent des données révisées sur les débits mensuels et annuels moyens et les extrêmes annuels du débit. Les révisions, corrections ou ajouts apportés aux données sur les débits et sur les sédiments après le 1er janvier 1980 sont indiqués par la lettre R dans les résumés des données. On peut obtenir plus de détails sur les révisions en s'adressant au chef régional concerné.

ONTARIO

ABITIBI RIVER AT ONAKAWANA - STATION NO. 04HE003

LOCATION LAT 50 38 00 N LONG 081 25 00 W
DRAINAGE AREA 27 500 km²
TYPE OF FLOW REGULATED
TYPE OF GAUGE MANUAL

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAY 07	14 00	2.0	1060	231	D49	61	285														
JUL 09	17 20		129	231	D49	49	303														

NOTE - SINGLE VERTICAL LOCATED AT 231 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1978	------P-----	MANUAL	46	JUL 27	46	JUL 27	---	---	---	---	---	---
1983	----P--P-P--	MANUAL	120	MAY 16 *	4	AUG 04 *	---	---	---	---	---	---
1986	----P-P-----	MANUAL	61	MAY 07	49	JUL 09	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ATTAWAPISKAT RIVER BELOW MUKETEI RIVER - STATION NO. 04FC001

LOCATION LAT 53 05 30 N LONG 085 00 30 W
DRAINAGE AREA 38 000 km²
TYPE OF FLOW NATURAL
TYPE OF GAUGE RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
AUG 09	10:00	8.0	186	MID	D49	52	297														

NOTE - SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1975	----PPPP----	MANUAL	20	JUL 05	7	AUG 23	---	---	---	---	---	---
1976	----P-------	MANUAL	11	MAY 30	11	MAY 30	---	---	---	---	---	---
1977	-----P------	MANUAL	10	JUN 04	10	JUN 04	---	---	---	---	---	---
1980	--------P----	MANUAL	80	AUG 13 *	80	AUG 13	---	---	---	---	---	---
1981	---------P---	MANUAL	70	SEP 30	70	SEP 30	---	---	---	---	---	---
1982	----P----P--	MANUAL	69	MAY 17	7	OCT 18	---	---	---	---	---	---
1983	----P--P-P--	MANUAL	31	OCT 27	1	AUG 06 *	---	---	---	---	---	---
1985	-------P----	MANUAL	61	AUG 20	61	AUG 20	---	---	---	---	---	---
1986	-------P----	MANUAL	52	AUG 09	52	AUG 09	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ONTARIO

AUSABLE RIVER NEAR SPRINGBANK - STATION NO. 02FF002

SUSPENDED SEDIMENT FOR 1986

LOCATION LAT 43 04 20 N LONG 81 39 35 W
DRAINAGE AREA 885 km²
TYPE OF FLOW NATURAL
TYPE OF GAUGE RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 52 200 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS

DAY	JAN DAILY DISCHARGE (m³/s)	JAN MEAN CONCENTRATION (mg/L)	JAN DAILY LOAD (t)	FEB DAILY DISCHARGE (m³/s)	FEB MEAN CONCENTRATION (mg/L)	FEB DAILY LOAD (t)	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	DAY
1	3.92 B	23	7.79	7.40 B	16	10.2	3.95 B	41	14.0	1
2	3.80 B	20	6.74	7.00 B	12	7.26	3.70 B	41	13.1	2
3	3.68 B	18 S	6.03	6.70 B	8	4.63	3.45 B	41 S	12.2	3
4	3.85 B	15	4.89	6.50 B	7	3.93	3.25 B	40	11.2	4
5	3.82 B	17	5.61	8.80 B	25 S	19.0	3.10 B	38	10.2	5
6	3.81 B	16	5.27	11.0 B	41	39.0	3.00 B	36	9.33	6
7	3.80 B	14	4.60	8.20 B	33	26.2	2.90 B	27	6.77	7
8	3.78 B	11 S	3.80	8.00 B	29	20.0	2.80 B	18	4.35	8
9	3.75 B	10	3.24	7.20 B	25	18.0	2.70 B	17	3.97	9
10	3.72 B	8	2.57	6.40 B	29	18.0	9.00 B	136 S	106	10
11	3.71 B	7 S	2.24	5.70 B	30	14.8	100 B	312 S	2 700	11
12	3.70 B	7	2.24	5.10 B	29	12.8	120 B	138	1 430	12
13	3.70 B	8	2.55	4.70 B	28	11.4	110 B	159	1 510	13
14	3.70 B	8	2.58	4.25 B	22	8.08	100 B	121	1 050	14
15	3.69 B	9	2.87	3.90 B	19	6.40	118	89 S	907	15
16	3.69 B	10	3.19	3.65 B	20	6.31	82.0	60	425	16
17	3.70 B	39 S	12.5	3.45 B	23	6.86	59.4	40 S	205	17
18	15.0 B	86 S	111	3.26 B	40 S	11.3	52.1	35 S	162	18
19	78.0 B	84	586	4.00 B	58	20.0	91.9	333 S	2 640	19
20	117	74 S	748	7.00 B	60	36.3	124	185	2 090	20
21	105	48	435	10.2 B	50	44.1	82.0	61 S	432	21
22	87.2	30 S	226	9.40 B	39	31.7	49.1	38 S	161	22
23	63.4	28	153	8.00 B	34	23.5	28.4	35 S	85.9	23
24	41.4	25	89.4	7.00 B	33	20.0	25.3	35 S	76.5	24
25	29.0	24	60.1	6.20 B	34	18.2	23.4	36 S	72.8	25
26	22.0	23	43.7	5.60 B	39	18.5	23.3	44 S	88.6	26
27	17.1	24	35.5	5.10 B	41	18.1	23.7	47 S	96.2	27
28	12.0 B	20	20.7	4.60 B	44	17.5	22.5	38 S	73.9	28
29	10.0 B	18	15.8				18.7	47 S	76.9	29
30	9.00 B	18	14.0				15.5	56 S	75.0	30
31	8.10 B	17	11.9				12.9	82 S	89.1	31
TOTAL	678.33		2 608.50	179.21		490.07	1 320.05		14 617.02	TOTAL

DAY	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	DAY
1	10.9	82 S	58.4	5.40	67	31.3	3.07	413	110	1
2	9.89	58 S	49.6	5.00	63	27.2	2.80	388	83.4	2
3	8.85	52 S	38.9	4.51	58 S	22.6	2.42	351	73.4	3
4	7.83	56 S	37.9	4.18	65	23.5	2.30 E	324 S	64.4	4
5	7.42	67 S	43.0	3.83	63	27.5	2.18 E	275	51.8	5
6	12.4	114 S	122	3.62	82	28.8	2.12 E	215	39.4	6
7	13.9	88 S	119	3.49	104 S	31.4	2.12 E	188 S	34.4	7
8	11.6	61	61.1	3.15	84	25.8	2.20 E	204	38.8	8
9	10.3	43	37.8	2.84	100	25.4	5.40 E	214	89.8	9
10	8.85	38	29.1	2.78	107	25.7	3.80 E	187 S	58.2	10
11	8.02	45	31.2	2.56	122	27.0	5.80 E	285	128	11
12	8.13	52 S	36.5	2.24	121 S	23.4	21.0 E	943 S	1 710	12
13	7.51	38	24.7	2.02	109	19.0	23.0 E	857	1 310	13
14	6.84	38	22.5	1.86	89	15.9	17.0 E	211	310	14
15	6.52	53 S	29.9	1.95	113	19.0	13.5 E	107 S	125	15
16	8.46	88	71.8	2.06	127	22.5	10.5 E	74	67.1	16
17	15.0	93	121	2.03	117 S	20.5	8.43	56	40.8	17
18	12.4	79	84.6	1.87	108	17.4	6.08	45	23.6	18
19	10.6	63 S	57.7	2.48	130	27.8	4.68	35	13.5	19
20	8.82	82	63.2	4.15	207	74.2	4.46	109	42.0	20
21	27.8	210	501	14.0	344	418	10.1	158 S	138	21
22	35.5	145	445	16.2	187 S	234	6.78	140	82.0	22
23	22.3	112	216	14.8	201	254	5.15	167	74.3	23
24	16.6	87 S	139	12.9	200	223	4.42	164	62.6	24
25	12.7	82	101	10.9	175 S	165	4.26	157 S	57.8	25
26	10.2	83	82.0	8.84	166	127	3.73	136	43.8	26
27	8.49	97	71.2	7.13	161	89.2	3.03	128	33.7	27
28	7.28	93 S	58.8	5.85	168	84.9	2.68	140	32.4	28
29	6.44	82	45.6	4.80	375	156	2.48	137 S	29.4	29
30	5.76	76	37.5	4.02	454 S	158	2.38	131	26.9	30
31				3.43	434	129				31
TOTAL	346.97		2 836.9	184.78		2 581.9	187.26		5 014.5	TOTAL

B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

AUSABLE RIVER NEAR SPRINGBANK - STATION NO. 02FF002

SUSPENDED SEDIMENT FOR 1986

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	2.24	126	24.4	3.95	141	48.1	3.18	55	15.1	1
2	2.02	124 S	21.6	2.38	113 S	23.2	1.83	52 S	8.67	2
3	1.78	116	17.8	1.72	95	14.1	1.38	49	5.78	3
4	1.65	116	16.6	1.38	81	9.66	1.14	53	5.22	4
5	1.62	116	16.2	1.15	70	6.98	0.985	71	6.04	5
6	1.57	111 S	15.1	1.02	63 S	5.55	0.883	93	7.10	6
7	1.44	102	12.7	0.983	57	4.88	0.784	93	6.30	7
8	1.51	98	12.8	1.08	67	6.25	0.722	85 S	5.30	8
9	1.10 E	81	7.70	2.38	99	20.2	0.740	90	5.75	9
10	0.950 E	69	5.66	2.13	86	15.8	0.835	96	6.93	10
11	0.900 E	65 S	5.05	1.31	73	8.26	19.1	404 S	667	11
12	1.10 E	78	7.41	1.02	69 S	6.08	126	318 S	3 480	12
13	1.20 E	93	9.64	0.911	66	5.19	205	87 S	1 540	13
14	1.10 E	86	8.17	0.859	62	4.60	167	43	620	14
15	0.900 E	80	6.22	0.805	59	4.10	103	32 S	285	15
16	0.950 E	72 S	5.91	0.780	59	3.98	89.8	47 S	283	16
17	0.800 E	67	4.63	0.798	58 S	4.00	80.1	33 S	171	17
18	1.40 E	69	8.35	0.744	55	3.54	36.4	38	120	18
19	2.00 E	92	15.8	0.681	52	3.06	22.7	68 S	133	19
20	5.40 E	104	48.5	0.630	49	2.67	15.9	83	114	20
21	3.10 E	84	22.5	0.586	50 S	2.53	12.0	89	92.3	21
22	2.30	124 S	24.6	0.551	50	2.38	13.2	120 S	137	22
23	1.72	91	13.5	0.554	50	2.39	28.8	148	368	23
24	1.23	63	6.70	0.595	51	2.62	31.9	113	311	24
25	0.891	42	3.60	0.885	58	3.43	25.3	100 S	219	25
26	1.22	64	6.75	0.886	58	3.49	20.4	91	160	26
27	8.15	178	93.5	0.768	58 S	3.85	16.5	89	127	27
28	8.49	114 S	83.6	2.63	104	23.6	17.4	88	132	28
29	6.84	134	79.2	6.85	88 S	52.4	28.5	168 S	428	29
30	8.89	217	169	6.22	86	35.5	106	238	2 180	30
31	8.73	174	101	4.96	56	24.0				31
TOTAL	78.401		874.29	51.836		356.38	1 138.559		11 619.47	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	141	77 S	938	9.95	56 S	48.1	9.39	29	23.5	1
2	123	55	584	8.80	50	38.0	8.01	34	23.5	2
3	85.5	46	340	8.11	47	32.9	18.1	98 S	153	3
4	65.1	45 S	253	7.41	39	25.0	28.0	75	181	4
5	68.9	71	423	6.71	37	21.5	20.0	35	60.5	5
6	52.8	63	287	6.11	38 S	20.6	16.0	23	31.8	6
7	41.3	61	218	5.65	35	17.1	13.0	15	16.8	7
8	31.1	58 S	156	5.34	30	13.8	11.0	7 S	6.65	8
9	25.2	63	137	5.04	27	11.8	9.79	17	14.4	9
10	21.8	58	105	4.74	24	9.83	15.4	60	79.8	10
11	16.5	48	68.4	4.40	21	7.98	16.8 B	57	82.7	11
12	13.1	43	48.7	4.16	16	5.75	15.9 B	47 S	64.6	12
13	11.2	60	58.1	3.93	16	5.43	12.2 B	43	45.3	13
14	37.3	491 S	1 580	3.39	16 S	4.89	10.2 B	44	38.8	14
15	62.0	173	927	3.62	16	5.00	10.2	78	68.8	15
16	43.0	63	234	3.40	16	4.70	8.85	93 S	68.5	16
17	34.5	45 S	134	3.38	15	4.35	7.61	77	50.6	17
18	24.3	42	88.2	3.33	14 S	4.03	13.9	138	163	18
19	16.0	43	66.9	3.18	14	3.82	31.6	105	288	19
20	14.0	43 S	52.0	3.00	13	3.37	31.2	52 S	140	20
21	11.5	43	42.7	2.88	13	3.32	25.9	43	96.2	21
22	9.75	38	32.0	3.07	13 S	3.46	19.8	44	75.3	22
23	8.50	38	27.8	2.93	13	3.29	15.2	49	64.4	23
24	7.61	34	22.4	3.44	26 S	7.73	12.2	84 S	88.5	24
25	6.63	26	15.3	4.67	49	19.8	18.3	151	213	25
26	6.31	23	12.5	7.78	116	78.0	25.8	140	312	26
27	8.26	71 S	38.3	25.5	132 S	291	23.4	99	200	27
28	9.48	138	105	20.5	79	140	20.5	76	135	28
29	11.0	92	87.4	14.8	88	71.6	17.1	88	97.5	29
30	12.0	94	97.5	11.8	40	40.8	14.7	84 S	81.3	30
31	11.6	75	75.3				12.8	82	88.6	31
TOTAL	1 030.42		7 254.5	201.06		946.74	510.65		3 035.85	TOTAL

B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

AUSABLE RIVER NEAR SPRINGBANK - STATION NO. 02FF002

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)		SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 03	14:15	0.1	3.88	W	12.0	SURF	18															
JAN 08	14:15	0.1	3.79	W	12.0	SURF	9															
JAN 11	15:45	0.1	3.71	W	12.0	SURF	8															
JAN 17	13:30	0.1	3.70	W	12.0	DHS9	40															
JAN 18	16:00	0.1	15.0	W	12.0	DHS9	88															
JAN 20	09:15	0.1	117		12.0	DHS9	77	400														
JAN 22	09:15	0.1	89.3		12.0	DHS9	29															
FEB 05	09:10	0.1	8.80	W	12.0	DHS9	18															
FEB 18	13:45	0.1	3.26	W	12.0	DHS9	42															
MAR 03	13:30	0.1	3.45	W	12.0	DHS9	41															
MAR 10	15:45	0.1	9.00	W	12.0	DHS9	131															
MAR 11	15:00	0.1	100	W	12.0	DHS9	256	340														
MAR 15	15:10	0.1	115		12.0	DHS9	86															
MAR 17	13:50	1.0	57.1		12.0	DHS9	38															
MAR 18	11:15	1.0	53.0		12.0	DHS9	35															
MAR 19	08:20	3.0	84.7		12.0	DHS9	387	303														
MAR 21	09:15	1.0	84.8		12.0	DHS9	64															
MAR 22	14:30	1.0	45.9		12.0	DHS9	37															
MAR 23	12:30	3.0	27.5		12.0	DHS9	35															
MAR 24	10:30	4.5	25.4		12.0	DHS9	35															
MAR 25	11:00	5.0	22.7		12.0	DHS9	35															
MAR 26	11:00	8.0	23.2		12.0	DHS9	43	337														
MAR 27	13:40	2.0	23.7		12.0	DHS9	48															
MAR 28	14:15	6.0	22.3		12.0	DHS9	33															
MAR 29	14:30	9.0	18.3		12.0	DHS9	49	352														
MAR 30	13:10	11.0	15.3		12.0	DHS9	56															
MAR 31	10:30	11.0	13.2		12.0	DHS9	63															
APR 01	13:15	13.0	10.9		12.0	DHS9	62															
APR 02	10:45	11.5	10.1		12.0	DHS9	80	344														
APR 03	11:00	12.0	8.71		12.0	DHS9	52															
APR 04	14:30	12.0	7.84		12.0	DHS9	56															
APR 05	17:00	10.0	7.38		12.0	DHS9	65															
APR 06	12:00	10.0	12.4		12.0	DHS9	117															
APR 07	15:10	13.0	13.5		12.0	DHS9	89															
APR 12	15:30	6.0	8.15		12.0	DHS9	50															
APR 15	13:30	10.0	6.50		12.0	DHS9	51	378														
APR 19	10:30	12.5	10.8		12.0	DHS9	84															
APR 24	19:30	10.0	14.9		12.0	DHS9	94															
APR 28	18:45	20.0	6.89		12.0	DHS9	92															
MAY 03	14:30	13.0	4.22		12.0	DHS9	58															
MAY 07	18:30	20.0	3.31		12.0	DHS9	104	364														
MAY 12	13:30	20.0	2.28		12.0	DHS9	120															
MAY 17	18:30	18.0	2.02		12.0	DHS9	113															
MAY 22	14:15	13.0	15.6		12.0	DHS9	149															
MAY 25	10:10	15.0	11.2		12.0	DHS9	177															
MAY 30	19:30	26.0	3.32		12.0	DHS9	456															
JUN 04	12:30	16.0	2.03		12.0	DHS9	328	398														
JUN 07	10:30	20.0	2.12	Y	12.0	DHS9	187															
JUN 10	13:20	23.0	3.60	Y	12.0	DHS9	181															
JUN 12	13:30	19.0	21.0	Y	12.0	DHS9	1170	386														
JUN 15	16:30	20.0	13.5	Y	12.0	DHS9	95															
JUN 21	10:10	20.0	11.1		12.0	DHS9	156	555														
JUN 25	19:00	23.0	4.19		12.0	DHS9	154															
JUN 29	16:30	26.0	2.33		12.0	DHS9	134															
JUL 02	19:30	25.0	1.88		12.0	DHS9	120															
JUL 06	10:15	24.0	1.53		12.0	DHS9	111	407														
JUL 11	18:30	23.0	0.900	Y	12.0	DHS9	84															
JUL 16	14:30	25.0	0.950	Y	12.0	DHS9	71															
JUL 22	15:15	27.0	2.54		12.0	DHS9	125															
JUL 28	08:40	24.0	8.98		12.0	DHS9	122	410														
AUG 02	14:00	25.0	2.34		12.0	DHS9	112															
AUG 06	17:00	25.0	1.00		12.0	DHS9	63															
AUG 12	14:15	23.0	1.40		12.0	DHS9	69															
AUG 17	18:00	27.0	0.812		12.0	DHS9	58															
AUG 21	14:10	26.0	0.587		12.0	DHS9	50															
AUG 27	14:15	20.0	0.796		12.0	DHS9	58															
AUG 29	14:20	17.0	7.20		12.0	DHS9	80	364														
SEP 02	14:30	20.0	1.81		12.0	DHS9	52															
SEP 08	13:00	15.0	0.725		12.0	DHE9	86															
SEP 11	14:20	18.0	25.4		12.0	DHS9	496															
SEP 12	15:00	18.0	143		12.0	DHS9	235	284														
SEP 13	10:45	17.0	216		12.0	DHS9	85															
SEP 15	13:50	15.0	97.3		12.0	DHS9	27															
SEP 16	15:00	14.0	69.4		12.0	DHS9	48	354														
SEP 17	14:15	14.0	59.8		12.0	DHS9	32															
SEP 19	14:30	16.0	21.7		12.0	DHS9	73															
SEP 22	14:10	17.0	11.7		12.0	DHS9	122															
SEP 25	16:45	18.0	23.9		12.0	DHS9	100															
SEP 29	14:00	18.0	25.8		12.0	DHS9	154															
OCT 01	10:40	18.0	145		12.0	DHS9	75	352														
OCT 04	16:30	17.0	61.7		12.0	DHS9	45															
OCT 08	13:30	13.0	30.5		12.0	DHS9	58															
OCT 14	11:10	13.0	31.1		12.0	DHS9	595	439														
OCT 17	15:00	10.0	33.8		12.0	DHS9	44	414														
OCT 20	14:00	9.0	13.8		12.0	DHS9	43															
OCT 27	15:50	11.0	6.22		12.0	DHS9	82	369														
NOV 01	15:30	10.0	9.72		12.0	DHS9	57															
NOV 06	14:15	8.0	6.09		12.0	DHS9	39															
NOV 14	15:30		2.94		12.0	DHS9	15															
NOV 18	15:20	3.0	3.28		12.0	DHS9	14															
NOV 22	15:30	2.0	2.99		12.0	DHS9	11															
NOV 24	12:30	1.0	3.45		12.0	DHS9	24															
NOV 27	18:10	5.0	28.6		12.0	DHS9	111	471														
DEC 03	09:00	3.0	14.3		12.0	DHS9	82	449														
DEC 08	10:45		11.2		12.0	DHS9	8															
DEC 12	13:30		15.9	W	12.0	DHS9	46															
DEC 16	18:00	0.1	8.10		12.0	DHS9	90															
DEC 20	18:10	2.0	30.5		12.0	DHS9	48	340														
DEC 24	12:00	1.0	12.1		12.0	DHS9	84															
DEC 30	10:45	2.0	14.6		12.0	DHS9	84															

NOTE : SINGLE VERTICAL LOCATED AT 12 METRES FOR 1986

DISCHARGE SYMBOL(S): W - DAILY MEAN; ICE CONDITIONS Y - DAILY MEAN; ESTIMATED

AUSABLE RIVER NEAR SPRINGBANK - STATION NO. 02FF002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY JAN-DEC MEAN LOAD (TONNES)	SUMMARY JAN-DEC HISTORICAL MEAN LOAD (TONNES)	SUMMARY JAN-DEC STANDARD ERROR OF MEAN %
1970	CCCCCCCCCCCC	MANUAL	988	MAY 15	11	JAN 27	4 530	MAY 16	35 200		98 3	98 3	---
1971	---CCCCCCCCC	MANUAL	236	AUG 27	18	DEC 21	887	APR 02	7 460		---	---	---
1972	CCCCCCCCCCCC	MANUAL	827	APR 17	20	FEB 22	7 790	APR 17	41 000		112	104	7.5
1973	CCCCCCCCCCCC	MANUAL	955	MAR 11	16	NOV 10	7 870	JAN 01	85 600		180	129	19.9
1974	CCCCCCCCCCCC	MANUAL	1 220	APR 04	12	DEC 20	15 200	MAR 05	93 600	*	256	161	22.7
1975	CCCCCCCCCCCC	MANUAL	1 480	APR 18	11	JAN 20	18 700	APR 19	75 200		206	170	17.4
1976	CCCCCCCCCCCC	MANUAL	804	JUL 10	22	DEC 08	5 220	MAR 06	65 500		179	172	14.1
1977	CCCCCCCCCCCC	MANUAL	848	JUN 29	43	MAR 23	6 600	MAR 13	85 500		179	173	11.9
1978	CCCCCCCCCCCC	MANUAL	414	APR 11	31	MAR 29	4 180	APR 02	39 400		108	165	11.8
1979	CCCCCCCCCCCC	MANUAL	1 550	APR 14	24	DEC 29	33 200	APR 14	92 900	*	255	175	11.4
1980	CCCCCCCCCCCC	MANUAL	758	JUN 29	19	FEB 05	5 890	MAR 22	41 500		113	158	11.2
1981	CCCCCCCCCCCC	MANUAL	690	SEP 02	11	DEC 30	4 200	SEP 02	41 300		113	163	10.9
1982	CCCCCCCCCCCC	MANUAL	1 630	MAR 31	8	JAN 20	18 700	MAR 31	85 700		180	165	9.9
1983	CCCCCCCCCCCC	MANUAL	712	APR 10	7	JAN 09	3 650	MAY 03	29 600		81.2	158	10.3
1984	CCCCCCCCCCCC	MANUAL	770	MAR 16	7	JAN 27	4 330	MAR 17	42 900		117	155	8.9
1985	CCCCCCCCCCCC	MANUAL	903	SEP 08	8	JAN 24	3 940	FEB 25	45 200		124	153	9.5
1986	CCCCCCCCCCCC	MANUAL	1 170	JUN 12	8	JAN 11	3 460	SEP 12	52 200		143	153	8.9

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH * - EXTREME FOR PERIOD OF RECORD

BAYFIELD RIVER NEAR VARNA - STATION NO. 02FF007

LOCATION: LAT 43 33 03 N LONG 081 35 22 W
DRAINAGE AREA: 466 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)		TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 10	10 00	0.1	2.28	10.0	X	DH48	3															
MAR 13	11 00	0.1	48.5	24.0		DH59	44															
MAR 19	10 10	1.5	99.3	24.0		DH59	316	224														
MAR 19	12 00	1.5	103	24.0		DH59	414	241														
MAR 27	14 15	0.1	20.0	15.0	X	DH48	12															
MAY 12	10 10		1.03	15.0	X	DH48	8	363														
JUN 09	10 40	18.0	1.07	15.0	X	DH48	29	420														
JUL 29	09 45		1.46	15.0	X	DH48	17	455														
OCT 08	09 45	11.5	12.6	15.0	X	DH48	30	321														
NOV 21	10 30	1.0	1.83	15.0	X	DH48	11															

NOTE : SINGLE VERTICAL LOCATED AT 24 METRES FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1985	---PPP-PP-PP	MANUAL	52	DEC 03	6	MAY 21	---	---	---		---	---	---
1986	P-P-PPP--PP-	MANUAL	414	MAR 19	3	JAN 10	---	---	---		---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ONTARIO

BEAR CREEK BELOW BRIGDEN - STATION NO. 02CC009

LOCATION: LAT 42 46 42 N LONG 082 17 54 W
DRAINAGE AREA: 533 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MARCH 1986

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)		TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 12	11:30	1.0	56.1	24.0		DH59	147	228														
APR 16	16:40	7.0	3.00	24.0		DH59	84	643														
MAY 01	09:20	12.0	1.70	3.5	X	DH48	80	645														
MAY 22	10:30	12.0	15.8	24.0		DH59	147	632														
JUN 24	08:25		1.37	3.5	X	DH48	184	590														
JUL 07	14:25	31.0	0.273	3.5	X	DH48	159	909														
SEP 08	14:55	19.0	0.078	3.5	X	DH48	82	2010														
OCT 23	12:30	12.0	2.70	3.5	X	DH48	106	602														
NOV 05	15:46	6.0	3.00	24.0		DH59	28	626														

NOTE : SINGLE VERTICAL LOCATED AT 24 METRES FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1986	--PPPPP-PPP-	MANUAL	184	JUN 24	*	28	NOV 05	*	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

BIG CREEK NEAR WALSINGHAM - STATION NO. 02GC007

SUSPENDED SEDIMENT FOR 1986

LOCATION: LAT 42 41 05 N LONG 80 32 15 W
DRAINAGE AREA: 591 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 22 800 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS:

DAY	JAN DAILY DISCHARGE (m³/s)	JAN MEAN CONCENTRATION (mg/L)	JAN DAILY LOAD (t)	FEB DAILY DISCHARGE (m³/s)	FEB MEAN CONCENTRATION (mg/L)	FEB DAILY LOAD (t)	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	DAY
1	5.20 B	41	22.0	5.20 B	45	24.1	5.50 B	62	29.5	1
2	5.00 B	38	18.7	6.05 B	72	37.6	5.35 B	62	37.0	2
3	5.85 B	34	17.2	5.97 B	73	37.7	5.15 B	77	34.3	3
4	5.75 B	30	14.9	5.90 B	67 S	34.2	5.00 B	72 S	31.1	4
5	5.65 B	27	13.2	9.60 B	101	83.8	4.90 B	73	30.9	5
6	5.55 B	28	12.5	10.5 E	97	88.0	4.85 B	73	30.6	6
7	5.45 B	24	11.3	9.47 E	76	62.2	4.85 B	84	35.8	7
8	5.35 B	27 S	12.5	8.55 E	65 S	48.0	4.80 B	85	33.3	8
9	5.25 B	46	20.9	8.00 B	63	43.5	5.10 B	48	21.8	9
10	5.15 B	44 S	19.6	7.40 B	57 S	36.4	7.40 B	145	92.7	10
11	5.07 B	38	17.1	6.80 B	30	17.6	23.2 E	421 S	808	11
12	5.00 B	40	17.3	6.40 B	14 S	7.74	24.6 E	233 S	499	12
13	4.93 B	39	16.6	6.10 B	19	10.0	24.4 E	191	403	13
14	4.87 B	36	15.1	5.70 B	34	16.7	29.3 E	226 S	573	14
15	4.92 B	43 S	18.3	5.50 B	46	21.9	29.3 E	190	481	15
16	4.94 B	47 S	20.1	5.30 B	58	26.6	27.1 E	184	384	16
17	5.80 B	46	24.1	5.05 B	77	33.6	25.6 E	142 S	317	17
18	7.40 B	62	39.8	4.95 B	78	33.4	22.7 E	111 S	218	18
19	10.0 B	105	90.7	4.85 B	71 S	30.4	21.8 E	124	234	19
20	18.1 E	121 S	188	5.10 B	74	32.6	26.6 E	152	349	20
21	16.5 E	109	155	5.40 B	85	39.7	29.2 E	81 S	205	21
22	17.1 E	109 S	161	6.00 B	87	45.1	30.3 E	82	215	22
23	16.6 E	86	123	5.80 B	75	42.8	32.3 E	96	185	23
24	13.7 E	60 S	59.2	5.60 B	64 S	36.5	18.0 E	91 S	142	24
25	11.8 E	40	40.1	5.40 B	61	33.7	15.0 E	90	124	25
26	10.0 B	41	35.4	5.20 B	61	32.7	15.2 E	100 S	131	26
27	8.20 B	37	26.2	6.00 B	59	30.6	15.1 E	101	132	27
28	7.50 B	36 S	23.3	5.80 B	56 S	28.1	14.7 E	94	119	28
29	7.00 B	43	24.0				14.2 E	90	110	29
30	6.85 B	44	25.3				13.6 E	88	105	30
31	6.40 B	41 S	22.7				12.9 E	84 S	93.6	31
TOTAL	248.38		1 287.9	183.49		1 015.84	508.80		6 185.3	TOTAL

DAY	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	DAY
1	11.9 E	83	85.3	7.37	63	40.1	8.00 E	95	49.3	1
2	11.2 E	79 S	76.4	7.14	65 S	40.7	5.90 E	91 S	46.4	2
3	10.5 E	74	67.1	6.63	63	37.2	5.75 E	88	43.7	3
4	10.1 E	82 S	64.1	6.85	61	36.0	5.70 E	84 S	41.4	4
5	9.72 E	85	64.6	6.90	55 S	32.6	5.80 E	91	45.6	5
6	11.3 E	100	97.6	6.48	65	37.0	8.00 E	102 S	53.9	6
7	11.8 E	86 S	90.6	6.72	80 S	46.4	5.95 E	103	49.4	7
8	12.0 E	68	70.5	6.41	69	38.2	5.75 E	103	51.2	8
9	12.1 E	82 S	84.8	6.32	65 S	35.5	5.50 E	101	48.0	9
10	11.9 E	58	59.8	6.32	63	34.4	5.55 E	101	48.4	10
11	11.1 E	56	53.7	6.32	59	32.2	8.00 E	110 S	67.9	11
12	10.4 E	51 S	45.8	6.32	56 S	29.8	7.22 E	132	82.3	12
13	9.82 E	47	39.9	6.33	54	29.5	7.40 E	113 S	71.6	13
14	9.35 E	43 S	34.7	6.33	53 S	29.0	6.76 E	103	60.2	14
15	9.08 E	43	33.9	6.34	54	29.8	6.28 E	105	57.1	15
16	8.93 E	66 S	56.6	6.41	74 S	41.0	6.17 E	115 S	61.3	16
17	12.0 E	84 S	102	6.37	78	41.8	6.55 E	109	61.7	17
18	11.4	138	139	6.38	85	35.7	6.65 E	91 S	52.3	18
19	11.0	98	93.1	7.48	81	58.8	5.75 E	78	38.8	19
20	10.7	100	93.4	10.2	182 S	160	5.53 E	78 S	36.3	20
21	14.0	184 S	188	12.8	171	191	5.35 E	71	32.8	21
22	13.9	112	135	12.2	118 S	124	5.25 E	81	37.7	22
23	12.5	80 S	87.2	11.9	108 S	111	5.15 E	96 S	24.8	23
24	12.4	104	111	12.5	117	128	5.04 E	83	23.1	24
25	11.0	87	82.7	11.0	101	96.0	4.83 E	47 S	20.0	25
26	9.76	72	80.7	9.43	90 S	73.3	4.83 E	44	18.4	26
27	8.91	66	50.8	8.53	61	59.7	5.20 E	45 S	20.2	27
28	8.33	61 S	43.8	8.01	73 S	80.5	4.90 E	43	18.3	28
29	7.86	60	40.7	7.30 E	78 S	49.2	4.52 E	43	16.8	29
30	7.51	56 S	37.8	6.80 E	85 S	84.2	4.43 E	43	16.6	30
31				6.36 E	88	53.9				31
TOTAL	323.97		2 369.0	241.92		1 883.0	171.42		1 373.4	TOTAL

B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

ONTARIO

BIG CREEK NEAR WALSINGHAM - STATION NO. 02EC007

SUSPENDED SEDIMENT FOR 1986

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	4.32 E	42	15.7	3.22	137	38.1	3.30	16	4.56	1
2	4.21 E	41	14.8	4.58	182	64.1	3.23	14	3.91	2
3	4.12 E	40	14.2	3.60	66	21.2	3.16	14	3.86	3
4	4.02 E	38	13.2	3.55	49 S	15.0	3.17	17	4.66	4
5	3.92 E	39	13.2	3.37	42	12.2	3.14	15 S	4.10	5
6	3.83 E	38	12.6	3.30	39	11.1	3.11	30	9.37	6
7	3.74 E	36	11.6	4.21	49 S	17.8	3.06	17	4.48	7
8	3.65 E	34 S	10.7	6.31	131	71.4	2.99	12 S	3.10	8
9	3.65 E	72 S	22.7	4.75	59 S	24.3	2.95	10	2.56	9
10	3.59	87	27.7	4.80	49	15.9	2.97	14	3.58	10
11	3.51	78 S	24.0	5.13	56 S	24.8	3.30	23 S	7.58	11
12	4.76	152	62.4	4.62	45	18.0	4.71	90	38.0	12
13	5.35	151	69.8	4.22	53 S	19.2	4.33	47	17.2	13
14	5.09	105 S	46.2	3.98	48	16.5	3.82	31	7.11	14
15	4.51	88	34.7	3.88	41	13.7	4.04	23 S	8.03	15
16	4.51	104 S	40.5	3.78	35	12.7	4.61	44	16.9	16
17	4.48	101	39.1	3.72	32	10.3	4.15	33 S	11.8	17
18	4.31	78	28.3	3.81	30 S	9.35	3.85	20	6.68	18
19	4.84	97	38.6	3.49	25	7.54	4.02	21 S	7.28	19
20	5.51	150	71.4	3.38	21 S	6.13	4.20	30	10.9	20
21	4.77	88 S	36.7	3.37	28	8.15	4.04	35	9.81	21
22	4.40	75	28.5	3.35	34	9.84	4.15	56 S	18.5	22
23	4.12	73	26.0	3.17	26	7.12	4.87	35	42.5	23
24	3.84	69 S	22.8	3.33	23	9.18	4.88	47 S	19.8	24
25	3.58	66	20.3	3.20	22 S	6.08	4.84	34	13.3	25
26	3.57	64	19.7	3.38	25	7.09	4.84	53 S	22.7	26
27	3.48	58	17.5	4.20	57 S	20.7	8.35	238	182	27
28	3.38	50	14.6	3.81	35	11.5	6.59	103	85.3	28
29	3.37	44	12.8	3.54	30	9.18	6.30	130 S	85.0	29
30	3.30	36 S	10.3	3.62	33	8.80	11.0	253	248	30
31	3.01	26	6.76	3.37	19	5.53				31
TOTAL	126.62		637.88	119.34		530.59	137.57		908.80	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	12.1	138 S	124	8.78	15	9.39	10.7	40 S	37.0	1
2	10.5	91	82.6	7.08	24	16.6	11.0	104	98.9	2
3	11.6	184	184	7.08	13 S	7.95	10.2	104	105	3
4	24.0	420 S	880	8.81	12	7.18	10.8	86 S	90.1	4
5	24.2	183	383	8.78	14	8.18	13.7	57	67.5	5
6	17.0	98 S	145	5.83	14	6.02	12.6	38	40.7	6
7	14.1	83	101	5.68	13	7.24	13.1	44	48.8	7
8	12.8	82 S	91.6	5.62	15	8.32	15.2	40	52.5	8
9	11.5	85	84.5	5.88	23	13.2	14.2	37 S	45.6	9
10	10.2	80 S	70.5	5.49	19 S	8.41	16.4	53	78.1	10
11	9.19	70	55.6	5.47	16	7.83	15.7	29	39.3	11
12	8.94	65	48.0	5.76	18 S	9.33	13.9	31	37.2	12
13	9.19	67 S	53.1	5.49	13	6.73	13.2	60 S	68.6	13
14	10.3	101	89.9	5.23	13 S	7.00	11.7	31	31.3	14
15	10.1	79 S	68.8	5.13	16	7.41	10.5	38	38.4	15
16	9.17	68	53.8	5.13	11	5.82	9.91	30 S	25.2	16
17	8.78	60 S	45.6	5.06	11 S	5.79	9.32	103 S	82.9	17
18	8.68	53	39.7	5.06	17	8.93	11.0	220	209	18
19	8.26	45	34.9	5.02	18 S	9.35	13.1	196	224	19
20	7.84	43 S	28.6	5.94	21	10.8	12.7	147	161	20
21	7.53	15 S	9.76	6.15	33 S	13.9	13.0	127	132	21
22	7.37	9	5.73	6.05	13	6.66	11.7	117 S	118	22
23	7.19	8	4.87	5.87	14	7.22	10.8	114	106	23
24	6.99	10	6.04	6.58	18 S	10.4	10.1	148 S	127	24
25	6.80	9	5.35	6.86	18	10.7	15.1	307	370	25
26	6.60	11	6.49	7.87	21	14.3	17.3	191	284	26
27	7.20 E	22 S	13.7	11.6	84	84.1	16.3	168	207	27
28	8.31 E	43	30.9	12.3	75 S	79.7	16.2	149	208	28
29	7.57	33	15.0	11.4	66	65.3	15.2	121	159	29
30	7.26	18 S	11.3	11.9	65	66.3	13.3	86 S	92.4	30
31	6.95	16 S	9.61				11.9	68	69.8	31
TOTAL	318.11		2 818.78	216.25		488.38	408.83		3 380.9	TOTAL

E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

BIG CREEK NEAR WALSINGHAM - STATION NO. 02GC007

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 08	12:35	0.1	5.35 W	12.0	SURF	23	422														
JAN 10	16:35	0.1	5.15 W	12.0	SURF	40															
JAN 15	13:30	0.1	4.82	12.0	DHSO	42															
JAN 16	10:35	0.5	4.84 W	12.0	DHSO	46															
JAN 20	17:15	2.5	16.5	12.0	DHSO	120															
JAN 22	10:50	2.0	17.3	12.0	DHSO	113	371														
JAN 24	17:10	1.0	13.0	12.0	DHSO	42															
JAN 28	10:10	0.5	7.50 W	12.0	DHSO	36															
JAN 31	17:10	0.5	8.40 W	12.0	DHSO	40															
FEB 04	17:30	1.0	8.80 W	12.0	DHSO	64															
FEB 08	16:40	1.0	8.40	12.0	DHSO	63															
FEB 10	17:10	0.5	7.40 W	12.0	DHSO	53															
FEB 12	11:30	0.1	8.40 W	12.0	DHSO	14															
FEB 18	17:20	2.0	8.85 W	12.0	DHSO	71															
FEB 24	17:15	2.5	8.60 W	12.0	DHSO	61															
FEB 28	17:15	1.0	9.80 W	12.0	DHSO	95	304														
MAR 04	17:15	4.0	9.00 W	12.0	DHSO	72															
MAR 11	17:15	3.0	23.9	12.0	DHSO	404															
MAR 12	10:05	1.5	26.0	12.0	DHSO	237	231														
MAR 12	17:15	1.5	24.9	12.0	DHSO	201															
MAR 14	11:45	2.0	21.8	12.0	DHSO	232															
MAR 14	17:15	2.5	29.4	12.0	DHSO	216															
MAR 17	17:12	3.0	25.3	12.0	DHSO	138															
MAR 18	17:15	4.0	23.1	12.0	DHSO	104	315														
MAR 21	18:05	2.0	22.1	12.0	DHSO	88	295														
MAR 24	16:30	4.5	17.2	12.0	DHSO	86															
MAR 25	16:50	8.0	15.0	12.0	DHSO	100															
MAR 31	17:15	12.0	12.6	12.0	DHSO	83															
APR 02	17:00	12.0	11.0	12.0	DHSO	78															
APR 04	17:10	9.5	9.96	12.0	DHSO	98															
APR 07	16:00	11.0	11.5	12.0	DHSO	78															
APR 08	17:30	8.0	13.2	12.0	DHSO	91	366														
APR 12	20:45	5.0	10.5	12.0	DHSO	91															
APR 14	18:05	9.0	9.27	12.0	DHSO	61															
APR 16	12:20	7.0	10.5	12.0	DHSO	67															
APR 17	14:20	8.0	11.8	12.0	DHSO	91															
APR 17	17:15	10.5	13.3	12.0	DHSO	117															
APR 21	16:10	10.5	14.4	12.0	DHSO	147	325														
APR 23	17:05	9.0	12.4	12.0	DHSO	89															
APR 28	17:10	15.5	8.35	12.0	DHSO	62															
APR 30	17:05	13.0	7.60	12.0	DHSO	58															
MAY 02	17:10	12.0	7.06	12.0	DHSO	65															
MAY 05	17:15	14.0	6.48	12.0	DHSO	57															
MAY 07	17:10	17.0	6.73	12.0	DHSO	78															
MAY 09	17:40	17.0	6.24	12.0	DHSO	64	303														
MAY 12	17:10	17.0	6.36	12.0	DHSO	52															
MAY 14	17:10	16.0	6.33	12.0	DHSO	61															
MAY 16	16:55	17.5	6.56	12.0	DHSO	81															
MAY 20	16:40	13.5	10.8	12.0	DHSO	174	380														
MAY 22	20:05	13.5	11.6	12.0	DHSO	111	389														
MAY 23	17:10	12.5	12.3	12.0	DHSO	108	393														
MAY 26	16:55	17.5	9.58	12.0	DHSO	68															
MAY 28	17:10	18.5	7.85	12.0	DHSO	69															
MAY 29	11:30	20.0	7.85	12.0	DHSO	78															
MAY 30	17:05	21.5	8.60 Y	12.0	DHSO	86															
JUN 02	17:10	18.5	8.80 Y	12.0	DHSO	94	467														
JUN 04	16:12	18.0	8.70 Y	12.0	DHSO	80															
JUN 06	17:15	11.0	8.00 Y	12.0	DHSO	102															
JUN 11	18:35	18.0	8.00 Y	12.0	DHSO	114															
JUN 13	10:12	19.0	7.40 Y	12.0	DHSO	106	621														
JUN 18	20:05	19.0	8.17 Y	12.0	DHSO	117															
JUN 18	18:40	18.0	8.85 Y	12.0	DHSO	82															
JUN 20	17:10	18.5	8.83 Y	12.0	DHSO	77															
JUN 23	17:10	21.5	9.18 Y	12.0	DHSO	58															
JUN 25	17:10	18.5	8.83 Y	12.0	DHSO	45															
JUN 27	17:05	18.0	8.20 Y	12.0	DHSO	48															
JUL 06	12:20	23.0	3.85 Y	12.0	DHSO	32															
JUL 08	17:05	21.5	3.85 Y	12.0	DHSO	88															
JUL 11	17:10	17.0	3.51	12.0	DHSO	73	395														
JUL 14	17:10	21.0	4.99	12.0	DHSO	99															
JUL 18	17:12	20.0	5.14	12.0	DHSO	111															
JUL 21	16:35	23.0	4.65	12.0	DHSO	76															
JUL 25	18:20	24.0	3.76	12.0	DHSO	67															
JUL 30	20:40	23.0	3.26	12.0	DHSO	34															
AUG 04	20:00	21.0	3.48	12.0	DHSO	46															
AUG 07	18:50	20.0	4.55	12.0	DHSO	91	386														
AUG 09	11:30	18.5	4.76	12.0	DHSO	96															
AUG 11	17:07	20.0	5.05	12.0	DHSO	47															
AUG 13	20:10	20.0	4.11	12.0	DHSO	55															
AUG 16	11:45	22.0	3.62	12.0	DHSO	31															
AUG 20	20:15	21.0	3.24	12.0	DHSO	19															
AUG 25	18:20	17.0	3.16	12.0	DHSO	17															
AUG 27	16:00	17.5	4.05	12.0	DHSO	46	524														
SEP 05	17:10	20.0	3.16	12.0	DHSO	16															
SEP 08	17:12	15.0	3.53	12.0	DHSO	11															
SEP 11	16:10	17.0	3.42	12.0	DHSO	35	386														
SEP 15	17:10	14.0	4.11	12.0	DHSO	35															
SEP 17	17:10	13.0	4.11	12.0	DHSO	39															
SEP 18	17:05	14.5	4.02	12.0	DHSO	39	386														
SEP 23	17:15	16.0	4.23	12.0	DHSO	62															
SEP 24	10:40	17.0	4.01	12.0	DHSO	61															
SEP 26	17:12	18.0	4.33	12.0	DHSO	91															
SEP 29	17:16	16.5	4.27	12.0	DHSO	133															
OCT 01	16:05	16.5	11.6	12.0	DHSO	110															
OCT 04	16:05	16.0	25.1	12.0	DHSO	381	379														
OCT 06	17:05	13.0	14.0	12.0	DHSO	88															
OCT 08	17:10	12.5	12.6	12.0	DHSO	81															
OCT 10	17:12	11.0	9.86	12.0	DHSO	77															
OCT 13	11:00	12.5	9.30	12.0	DHSO	86	403														
OCT 15	17:10	11.0	9.05	12.0	DHSO	72															
OCT 17	17:07	10.0	8.77	12.0	DHSO	57															
OCT 20	17:15	10.0	9.77	12.0	DHSO	42															
OCT 21	12:15	10.0	9.62	12.0	DHSO	10															

NOTE : SINGLE VERTICAL LOCATED AT 12 METRES FOR 1988

DISCHARGE SYMBOL(S): W - DAILY MEAN, ICE CONDITIONS Y - DAILY MEAN, ESTIMATED

CONTINUED

ONTARIO

BIG CREEK NEAR WALSINGHAM - STATION NO. 02SC007 (CONTINUED)

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	PERCENT SILT	PERCENT CLAY
OCT 27	17:10	12.0	7.20 Y	12.0	DH59	25															
OCT 30	10:15	10.5	7.31	12.0	DH59	18															
OCT 31	16:50	9.5	6.82	12.0	DH59	14															
NOV 03	12:30	8.0	7.05	12.0	DH59	10															
NOV 10	17:22	7.0	6.40	12.0	DH59	13															
NOV 12	17:10	5.5	6.73	12.0	DH59	12															
NOV 14	17:08	2.0	6.10	12.0	DH59	13															
NOV 17	17:12	5.5	6.18	12.0	DH59	10															
NOV 19	17:10	3.0	6.00	12.0	DH59	16															
NOV 21	17:13	3.0	6.11	12.0	DH59	18															
NOV 24	17:12	5.0	6.82	12.0	DH59	17															
NOV 28	11:28	5.5	12.6	12.0	DH59	81															
DEC 01	17:12	3.5	10.4	12.0	DH59	39															
DEC 04	11:10	3.5	15.9	12.0	DH59	83	475														
DEC 08	17:00	3.0	13.5	12.0	DH59	43															
DEC 13	15:00	1.5	13.2	12.0	DH59	36															
DEC 15	10:30	1.0	9.73	12.0	DH59	27															
DEC 17	17:20	4.5	9.20	12.0	DH59	153															
DEC 22	17:12	2.5	11.5	12.0	DH59	112															
DEC 24	10:07	3.0	10.1	12.0	DH59	135															
DEC 30	16:45	3.5	13.0	12.0	DH59	80	427														

NOTE : SINGLE VERTICAL LOCATED AT 12 METRES FOR 1988

DISCHARGE SYMBOL(S): Y - DAILY MEAN, ESTIMATED

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY - JAN-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1966	-----CCCCCCC	MANUAL	315	DEC 08	10	JUL 26	887	DEC 10	6 180	---	---	---
1967	CCCCCCCCCCCC	MANUAL	535	JUN 29	28	OCT 11	888	APR 03	24 100	65.9	65.9	---
1968	CCCCCCCCCCCC	MANUAL	961	AUG 05	16	NOV 09	1 650	FEB 04	38 300	77.4	71.7	8.0
1969	CCCCCCCCCCCC	MANUAL	498	JAN 24	2	OCT 07	2 790	FEB 01	31 900	87.4	76.9	8.1
1970	CCCCCCCCCCCC	DUAL	277	DEC 04	8	JAN 26	340	APR 03	11 700	32.2	66.7	18.3
1971	CCCCCCCCCCCC	MANUAL	315	MAR 07	2	OCT 19	888	FEB 28	13 400	36.4	58.9	16.3
1972	CCCCCCCCCCCC	MANUAL	464	MAR 01	7	FEB 24	1 520	MAR 02	20 800	56.9	59.4	15.1
1973	CCCCCCCCCCCC	MANUAL	452	MAR 06	4	OCT 12	1 160	MAR 14	22 400	61.4	59.7	12.7
1974	CCCCCCCCCCCC	MANUAL	462	MAY 12	1	SEP 25 *	1 600	JAN 29	27 900	76.5	61.8	11.1
1975	CCCCCCCCCCCC	MANUAL	533	FEB 24	8	JAN 18	855	MAR 22	22 000	60.3	61.8	8.8
1976	CCCCCCCCCCCC	MANUAL	404	FEB 16	9	SEP 23	2 760	MAR 06	26 900	76.9	63.4	9.0
1977	CCCCCCCCCCCC	MANUAL	1 630	SEP 26	12	JAN 25	3 690	SEP 26 *	33 600	82.6	66.0	8.8
1978	CCCCCCCCCCCC	MANUAL	887	MAY 13	15	FEB 27	878	MAR 22	24 600	72.8	66.5	8.0
1979	CCCCCCCCCCCC	MANUAL	347	APR 14	11	SEP 28	2 510	MAR 05	30 400	83.3	67.9	7.5
1980	CCCCCCCCCCCC	MANUAL	1 690	JUL 22	8	NOV 15	3 040	JUL 22	26 300	71.8	68.3	6.9
1981	CCCCCCCCCCCC	MANUAL	764	JUN 22	7	DEC 10	1 150	FEB 16	20 500	56.1	67.4	6.8
1982	CCCCCCCCCCCC	MANUAL	1 880	MAY 26 *	3	OCT 29	2 540	MAY 26	42 600 *	117	70.8	7.4
1983	CCCCCCCCCCCC	MANUAL	741	FEB 03	2	OCT 21	1 250	FEB 03	23 300	63.9	70.1	7.0
1984	CCCCCCCCCCCC	MANUAL	448	FEB 13	9	OCT 19	1 890	FEB 14	24 100	66.0	69.8	6.6
1985	CCCCCCCCCCCC	MANUAL	1 840	MAY 31	5	AUG 08	1 920	FEB 28	29 500	80.8	70.4	6.3
1986	CCCCCCCCCCCC	MANUAL	404	MAR 11	10	OCT 21	890	OCT 04	22 800	62.5	70.0	6.0

DUAL - MANUAL AND AUTOMATIC SAMPLING MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH * - EXTREME FOR PERIOD OF RECORD

BIG OTTER CREEK NEAR CALTON - STATION NO. 02GC026

SUSPENDED SEDIMENT FOR 1986

LOCATION: LAT 42 42 30 N LONG 80 50 20 W
DRAINAGE AREA: 676 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 184 000 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS:

DAY	JAN DAILY DISCHARGE (m³/s)	JAN MEAN CONCENTRATION (mg/L)	JAN DAILY LOAD (t)	FEB DAILY DISCHARGE (m³/s)	FEB MEAN CONCENTRATION (mg/L)	FEB DAILY LOAD (t)	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	DAY
1	5.80 B	38	19.0	6.20 B	25	13.4	5.30 B	23	10.5	1
2	5.65 B	28	17.6	6.20 B	39	20.9	5.20 B	23	10.3	2
3	5.58 B	38	18.4	6.25 B	34	18.4	5.10 B	23	10.1	3
4	5.53 B	40	19.1	6.35 B	30	16.5	5.05 B	22	9.60	4
5	5.50 B	49	23.3	6.80 B	36	21.7	5.00 B	24	10.4	5
6	5.50 B	49	23.3	7.80 B	33	21.7	5.00 B	24	10.4	6
7	5.47 B	36	16.0	10.4 B	85	79.3	5.00 B	23	9.94	7
8	5.45 B	36	17.0	8.80 B	82	62.5	5.05 B	18	7.85	8
9	5.25 B	37	16.8	8.80 B	43	32.7	8.40 B	23	18.2	9
10	5.05 B	36	15.7	8.20 B	37	26.2	10.7	41	37.9	10
11	5.00 B	35	15.1	7.80 B	32	21.6	51.7	931	4 160	11
12	5.03 B	33	13.9	7.60 B	26 S	17.1	88.7	1 110 S	8 590	12
13	5.05 B	34	14.6	7.00 B	33	13.8	53.0	317	1 450	13
14	5.08 B	34	14.9	6.70 B	22	12.7	84.7	771 S	3 840	14
15	5.13 B	30 S	13.3	6.60 B	19	10.7	55.2	746	3 960	15
16	5.18 B	34	15.2	6.30 B	15	8.16	48.6	289	1 210	16
17	8.00 B	65	28.5	6.00 B	14	7.26	39.2	150	506	17
18	8.20 B	231	184	5.80 B	15	7.65	33.0	135	385	18
19	18.7 B	239	407	5.60 B	16	8.02	58.2 E	3 030 S	15 300	19
20	33.1 E	123	352	7.60 B	31	20.9	76.2	3 620	23 600	20
21	33.6 E	79	231	10.5 B	105	86.2	61.6	817	3 280	21
22	30.5 E	56	146	13.0 B	125	142	28.1	239	601	22
23	19.7	45	76.6	10.3 B	84	57.0	21.6	220	411	23
24	12.6 B	38	42.0	9.00 B	40	31.1	18.6	222	378	24
25	9.80 B	33	28.5	7.70 B	28	18.6	17.9	166	257	25
26	8.20 B	27	19.1	6.50 B	24	13.6	17.2	165	245	26
27	7.20 B	30	18.7	6.00 B	23	11.8	18.4	298	474	27
28	6.60 B	30	17.1	5.70 B	23	11.3	17.8	155	238	28
29	6.30 B	38	21.3				14.9	115	148	29
30	6.20 B	45	24.6				12.8	118	130	30
31	6.10 B	35	13.3				11.3	101	97.7	31
TOTAL	300.25		1 885.3	212.80		812.89	838.50		86 985.89	TOTAL

DAY	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	DAY
1	9.94	98	84.2	6.58	58	33.0	5.23	133	60.1	1
2	9.10	93	73.1	6.31	50	26.4	5.22	164	74.0	2
3	8.29	88	63.0	5.86	46	23.3	4.62	115	47.6	3
4	7.69	78	51.8	5.55	44	21.1	4.52	73	28.5	4
5	7.48	74	47.6	5.38	48	22.3	4.75	148	60.7	5
6	10.2	113	89.6	5.44	60	28.2	5.01	210	90.8	6
7	15.2	246	323	5.66	63	40.6	4.80	161	64.0	7
8	14.5	148	186	5.24	75	34.0	4.66	169 S	68.0	8
9	12.6	97	107	4.85	64	27.4	4.42	159	60.7	9
10	10.9	69	65.0	4.75	62	25.8	4.07	103	36.2	10
11	9.88	60	51.2	4.65	59	23.7	4.78	153	63.2	11
12	9.39	57	46.2	4.84	59 S	25.1	11.4	1 040 S	1 020	12
13	8.76	46	36.3	4.50	57	22.2	12.0	861	896	13
14	8.26	42	29.8	4.43	55	21.1	8.31	375	269	14
15	8.35	39	28.1	4.42	62	23.7	6.86	269	159	15
16	8.88	105	88.5	5.07	79	34.5	6.80	266	186	16
17	15.4	387 S	486	4.83	75	31.8	7.67	466	323	17
18	16.8	351	503	4.72	66	27.7	8.03	492	341	18
19	12.8	187	207	7.66	138	89.3	6.57	339	187	19
20	10.8	148	136	13.7	227	269	5.95	261 S	134	20
21	17.5	343	518	32.9 E	656	1 860	5.33	240	111	21
22	24.3	437	917	26.4	377	827	4.81	239	101	22
23	16.9	240	352	17.4	317	336	4.73	226	93.2	23
24	13.7	151	179	16.2	370	435	4.66	203	81.6	24
25	11.1	105	101	15.6	339	322	4.48	196	76.3	25
26	9.84	79	85.6	11.1	188	178	4.24	195	71.4	26
27	8.82	69	80.6	8.93	168	128	4.28	274	101	27
28	7.78	66	66.3	7.90	164	105	4.66	388	156	28
29	7.32	63	39.3	8.83	147 S	88.9	4.41	336	128	29
30	6.78	60	35.2	8.20	138	73.5	4.26	287	109	30
31				8.62	127	81.7				31
TOTAL	341.44		5 068.2	270.25		5 383.0	171.35		5 273.1	TOTAL

B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

ONTARIO

BIG OTTER CREEK NEAR CALTON - STATION NO. 02EC026

SUSPENDED SEDIMENT FOR 1986

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	4.07	284	99.9	4.20	895	326	2.83	130	28.5	1
2	4.03	348	121	3.46	543 S	162	2.66	125 S	27.6	2
3	3.93	332	113	3.25	386	108	2.54	116	25.5	3
4	3.82	311	103	3.08	220	61.2	2.50	104	22.5	4
5	3.78	318	103	2.88	182	41.9	2.50	109	23.5	5
6	3.79	307	101	2.87	178	45.9	2.49	119	25.6	6
7	3.78	300	97.3	8.47	1 980	1 480	2.41	111	23.1	7
8	3.75	294	95.3	8.42	1 940 S	1 120	2.35	109	22.1	8
9	3.62	286 S	89.5	5.42	578	271	2.35	100	20.4	9
10	3.06	262	69.3	4.88	343	145	2.35	87	17.7	10
11	2.96	324	82.9	4.85	352	148	2.78	139	33.4	11
12	4.78	846 S	391	4.38	261	86.5	3.82	245	80.9	12
13	5.61	788	383	3.77	204	67.6	3.78	149 S	48.8	13
14	5.44	275	129	3.51	201	61.0	3.59	169	52.9	14
15	4.45	214	82.5	3.42	214	63.8	3.78	235	76.7	15
16	4.46	285	109	3.28	199	56.6	4.18	318	115	16
17	4.34	194	72.7	3.16	195	53.1	3.53	229	69.6	17
18	3.95	148	50.5	3.06	181 S	48.2	3.41	190	56.0	18
19	3.85	133 S	44.2	2.89	165	41.4	3.34	171	49.3	19
20	4.05	218	76.3	2.76	159	38.2	3.19	182	41.8	20
21	3.92	212	71.8	2.72	155	36.4	3.16	133	36.5	21
22	3.52	180	44.7	2.68	150	34.7	3.45	207	61.8	22
23	3.20	134	37.0	2.65	132	30.2	4.36	260	97.5	23
24	2.99	114	29.5	2.72	124	28.1	4.08	209 S	73.7	24
25	2.83	117	28.6	2.65	124	28.4	3.70	185	58.1	25
26	2.84	130 S	31.9	2.65	165 S	41.0	3.78	216	69.9	26
27	2.72	134	31.5	3.52	329	100	11.0	1 180	1 120	27
28	2.66	137	31.5	3.15	221	60.1	12.0	818	841	28
29	2.86	133	30.6	2.91	162	38.2	9.84	535	437	29
30	2.89	132	29.5	2.81	130	31.6	18.7	1 270 S	2 160	30
31	2.95	137	35.0	2.78	161	36.7				31
TOTAL	113.86		2 809.6	113.61		4 883.0	138.09		5 819.2	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	24.1	1 430	2 980	5.40 E	98	45.7	7.50 E	211	137	1
2	16.5	885	1 110	5.20 E	105	56.2	8.40 E	212	154	2
3	21.1	2 100	3 830	5.95 A	64 S	43.3	12.0 E	305	316	3
4	41.6	2 080	7 510	5.84	76	38.3	18.0 E	887	1 840	4
5	42.1	1 360	4 870	5.67	84	31.4	14.8 E	833	809	5
6	30.6	880	1 740	5.41	83	38.8	12.0 E	330	342	6
7	19.6	405	682	5.19	181 S	81.2	10.0 E	338	292	7
8	13.4	308	356	5.08	237	104	12.0 E	476 S	494	8
9	11.0	245	233	5.30	253	116	19.0 E	527	665	9
10	8.22	161	102	5.09	181	84.0	24.0 E	1 270	2 630	10
11	7.67	127	85.6	5.11	217	95.8	18.8 E	1 580	2 280	11
12	7.11	98	60.2	5.20	247	11	13.0 E	1 220	1 370	12
13	6.18	97	58.6	5.01	177 S	76.6	11.3 E	1 050	1 030	13
14	13.1	182	206	4.77	148	61.0	10.0 E	831	795	14
15	16.6	367 S	532	4.67	129	52.0	9.10 E	835	648	15
16	12.1	182	190	4.86	117	47.1	8.58 A	754 S	559	16
17	8.22	123	98.0	4.86	110	44.3	8.30	708	508	17
18	7.71	112	74.6	4.80	100	39.7	12.4	836	1 000	18
19	8.86	100	59.3	4.48	87	37.6	18.6	1 210	2 070	19
20	8.37	95	52.3	4.37	119	44.8	15.8	883	1 510	20
21	8.20 A	98 S	52.8	4.48	139	53.8	16.1	852	907	21
22	8.80 E	113	87.8	4.47	139 S	53.7	13.5	681	561	22
23	8.66 A	126 S	82.8	4.51	196	77.2	11.6	353	384	23
24	8.65 E	128	98.8	5.59	282	138	10.6	398	385	24
25	8.40 E	106	68.0	8.00 E	316	230	24.3	1 390	2 920	25
26	8.30 E	88	60.3	13.0 E	418	671	35.3	1 740	5 460	26
27	8.43 E	81	62.9	21.0 E	1 080	1 880	28.6	804	1 880	27
28	8.75 E	105	83.2	16.0 E	723 S	886	21.3	527	970	28
29	8.60 E	84	63.1	11.8 E	326	234	16.6	401	575	29
30	8.60 E	80	56.7	9.70 E	257	188	14.3	326 S	403	30
31	8.31 A	82 S	39.6				12.7	270	286	31
TOTAL	387.18		25 417.6	201.13		5 774.7	473.68		34 232	TOTAL

A - MANUAL GAUGE E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

BIG OTTER CREEK NEAR CALTON - STATION NO. 02GC026

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 15	11:00	0.1	5.13	35.0	SURF	31															
FEB 12	10:05	0.1	7.60 W	35.0	DH59	26															
MAR 12	12:35	1.0	89.8	35.0	DH59	1050															
MAR 14	13:25	1.5	55.0	35.0	DH59	796	271														
MAR 19	11:30	1.5	61.5	35.0	DH59	2950															
APR 17	12:20	8.0	18.2	35.0	DH59	376	348														
MAY 12	11:30	15.0	4.54	35.0	DH48	58	402														
MAY 29	09:20	20.0	6.97	35.0	DH48	152	410														
JUN 08	14:30	25.0	4.71	35.0	DH59	178															
JUN 12	13:12	28.0	12.2	35.0	DH59	1150	581														
JUN 20	11:10	15.0	6.04	35.0	DH59	261															
JUL 09	11:05	23.0	4.90	35.0	DH59	283															
JUL 12	09:00	19.0	4.88	35.0	DH59	814															
JUL 18	11:55	21.0	3.86	35.0	DH59	124															
JUL 26	09:00	25.0	3.51	35.0	DH59	131															
AUG 02	08:35	20.0	3.63	35.0	DH59	555															
AUG 08	08:50	23.0	8.66	35.0	DH59	1620	381														
AUG 18	10:18	24.0	3.11	35.0	DH59	194															
AUG 18	10:30	24.0	3.11	35.0	DH59	181															
AUG 26	08:25	19.0	2.60	35.0	DH59	125															
SEP 02	15:10	26.0	2.57	35.0	DH59	129															
SEP 13	14:15	20.0	3.86	35.0	DH59	130															
SEP 24	09:30	17.0	4.12	35.0	DH59	200	409														
SEP 24	10:15	17.0	4.12	35.0	DH59	219															
SEP 30	15:20	25.0	20.8	35.0	DH59	1550	449														
OCT 15	09:25	9.0	18.6	35.0	DH59	457															
OCT 21	10:10	8.0	8.20	35.0	DH59	97															
OCT 23	10:15	15.0	5.66	35.0	DH59	133															
OCT 31	15:15	12.0	5.31	35.0	DH59	83															
NOV 03	10:45	10.0	5.98	35.0	DH48	82															
NOV 07	08:55	5.0	5.22	35.0	DH59	178															
NOV 13	15:15	0.1	4.85	35.0	DH59	161															
NOV 22	15:20	3.0	4.43	35.0	DH59	136															
NOV 28	15:40	1.0	15.0 Y	35.0	DH59	480	533														
DEC 08	09:10	0.1	12.0 Y	35.0	DH59	474															
DEC 16	12:30	1.0	8.59	35.0	DH59	757	400														
DEC 30	12:30	1.0	14.5	35.0	DH59	321															

NOTE : SINGLE VERTICAL LOCATED AT 34.0 METRES FOR 1986

DISCHARGE SYMBOL(S): W - DAILY MEAN, ICE CONDITIONS Y - DAILY MEAN, ESTIMATED

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY - JAN-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1975	PPPPPPPCCCCC	MANUAL	845	AUG 25	82	OCT 08	3 470	DEC 16	35 500	---	---	---
1976	CCCCCCCCCCCC	MANUAL	1 650	MAR 05	11	OCT 12 *	9 610	MAR 06	129 000	354	354	---
1977	CCCCCCCCCCCC	MANUAL	2 520	SEP 26	23	FEB 22	14 200	SEP 27	177 000	484	419	15.5
1978	CCCCCCCCCCCC	MANUAL	2 600	SEP 15	38	NOV 10	8 340	MAR 23	108 000	297	378	14.6
1979	CCCCCCCCCCCC	MANUAL	3 300	APR 14	54	SEP 27	34 100	APR 15 *	187 000	513	412	12.5
1980	CCCCCCCCCCCC	MANUAL	2 850	SEP 14	48	NOV 20	19 400	MAR 22	195 000	532	436	10.7
1981	CCCCCCCCCCCC	MANUAL	1 330	OCT 01	37	FEB 10	8 110	FEB 24	114 000	313	416	10.4
1982	CCCCCCCCCCCC	MANUAL	2 410	MAY 29	19	OCT 05	12 600	APR 01	258 000 *	707	457	12.1
1983	CCCCCCCCCCCC	MANUAL	5 130	AUG 12	22	MAY 17	30 800	AUG 12	237 000	648	481	11.1
1984	CCCCCCCCCCCC	MANUAL	8 170	SEP 26 *	26	OCT 11	17 700	MAY 23	199 000	545	488	9.8
1985	CCCCCCCCCCCC	MANUAL	4 630	MAR 28	38	JAN 09	11 500	MAR 09	182 000	497	489	8.7
1986	CCCCCCCCCCCC	MANUAL	2 950	MAR 19	26	FEB 12	23 800	MAR 20	184 000	450	485	8.0

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

BLACK RIVER NEAR MARATHON - STATION NO. 02BB002

LOCATION: LAT 48 41 20 N LONG 086 12 45 W
DRAINAGE AREA: 1 980 km^2
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 24	15:58	4.0	112	21.0	D48	210	214														
APR 29	19:08	6.0	141	21.0	D48	242	234														

NOTE : SINGLE VERTICAL LOCATED AT 21 METRES FOR 1986

ONTARIO

BLACK RIVER NEAR MARATHON - STATION NO. 02BB003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1985	---P--P--P--	MANUAL	647	APR 25 *	12	OCT 21 *	---	---	---	---	---	---
1986	---P--------	MANUAL	242	APR 29	210	APR 24	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

CATFISH CREEK NEAR SPARTA - STATION NO. 02GC018

LOCATION: LAT 42 44 46 N LONG 081 03 29 W
DRAINAGE AREA: 7 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)		TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 11	12:30	1.0	70.9	7.0		DH59	506	236														
MAR 13	14:45	1.0	27.4	7.0		DH59	432	323														
JUN 05	14:30	18.0	0.741	13.0	X	DH48	19	534														
JUL 15	15:30	22.0	0.442	5.0	X	DH48	54	542														
AUG 12	14:30	19.0	0.331	5.0	X	DH48	88	435														
SEP 08	14:00	15.0	0.176	5.0	X	DH48	90	341														
OCT 10	14:35	11.0	1.72	7.0		DH48	105	451														
NOV 06	11:30	6.0	0.827	7.0		DH48	13															

NOTE : SINGLE VERTICAL LOCATED AT 7 METRES FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1985	---PPPPP-P--	MANUAL	155	AUG 29	18	MAY 07	---	---	---	---	---	---
1986	--P--PPPPPP-	MANUAL	506	MAR 11 *	13	NOV 06 *	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

CONESTOGO RIVER ABOVE DRAYTON - STATION NO. 02GA039

LOCATION: LAT 43 46 58 N LONG 080 38 20 W
DRAINAGE AREA: 272 km²
TYPE OF FLOW: REGULATED SINCE 1982
TYPE OF GAUGE: MANUAL

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)		TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 19	12:10	0.1	88.3	15.0		DH59	785	202														
APR 11	13:20	6.0	2.00	3.0	X	DH48	9	354														
AUG 29	10:15	22.0	3.06	3.0	X	DH48	54	518														

NOTE : SINGLE VERTICAL LOCATED AT 15 METRES FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

ONTARIO

CONESTOGO RIVER ABOVE DRAYTON - STATION NO. 02GA039

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)				SAMPLED CONCENTRATION MINIMUM (mg/L)				SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1985	--PPP--P--P-	MANUAL	671	APR	05		5	MAY	14	*	---	---	---	---	---	---
1986	--PP---P----	MANUAL	785	MAR	19	*	5	APR	11		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

ONTARIO

CREDIT RIVER AT ERINDALE - STATION NO. 02HB002

SUSPENDED SEDIMENT FOR 1986

LOCATION: LAT 43 32 34 N LONG 79 39 26 W
DRAINAGE AREA: 785 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 60 600 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS:

DAY	JAN DAILY DISCHARGE (m³/s)	JAN MEAN CONCENTRATION (mg/L)	JAN DAILY LOAD (t)	FEB DAILY DISCHARGE (m³/s)	FEB MEAN CONCENTRATION (mg/L)	FEB DAILY LOAD (t)	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	DAY
1		1			13		4.50 B	17	6.61	1
2		1 S			13		4.65 B	15	6.03	2
3		5 S			14		4.83 B	20	8.35	3
4		7			14		6.28 B	33	17.9	4
5		5			17		6.96 B	44	26.5	5
6		3 S			20		7.10 B	38	22.1	6
7		3			16		6.73 B	25	14.5	7
8		0 S			14		6.33 B	24	13.1	8
9		6			13		9.27 B	24	19.2	9
10		23 S			12		11.5 B	75	74.5	10
11		17			10 S		45.0 B	221 S	859	11
12		4			10		29.9 B	95 S	245	12
13		10 S			8		29.7 B	135 S	346	13
14		36			10		31.6 B	91 S	250	14
15		61 S			12		34.7 B	87	261	15
16		75			14		26.3 B	73	166	16
17		100			16		23.1 B	61 S	122	17
18		180			18		27.3 B	108	255	18
19		250			28		74.0 B	1 000 S	6 380	19
20		376 S			35		50.0 B	283	1 220	20
21		200			31		31.0 B	65 S	174	21
22		31 S			30		22.0 B	62	118	22
23		28			29		19.0 B	65	107	23
24		22 S			28		18.6 B	68 S	115	24
25		17			27		19.3	49	81.7	25
26		15	4.86 B		25 S	10.5	26.0	111 S	249	26
27		13	4.60 B		17	6.76	33.4	156	450	27
28		13	4.45 B		17	6.54	24.7	67	143	28
29		13					19.7	46	78.3	29
30		13					19.2	55	91.2	30
31		13					17.6	51 S	77.6	31
TOTAL				13		23.80	691.45		12 007.59	TOTAL

DAY	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	DAY
1	14.5	43	54.1	7.11	19	11.7	4.92	19	8.08	1
2	13.2	31 S	35.4	6.72	14 S	8.13	4.74	20 S	8.19	2
3	11.6	23	23.6	6.33	14	7.66	4.44	18	6.81	3
4	10.7	17 S	15.7	6.07	13	6.82	4.20	11 S	3.89	4
5	10.7	17	15.7	5.99	11 S	5.69	4.49	17	6.59	5
6	14.1	25	30.5	5.80	12	6.01	4.78	22 S	9.03	6
7	13.1	18 S	20.4	5.71	18 S	8.88	4.64	24	9.62	7
8	11.8	15	15.0	5.68	21	10.3	5.50	32	15.2	8
9	10.5	15 S	13.6	5.13	26 S	11.5	4.78	31 S	8.69	9
10	9.79	15 S	12.7	5.35	27	12.5	4.26	27	9.88	10
11	9.53	14 S	11.5	5.12	28	12.4	6.63	122	69.9	11
12	9.16	14	11.1	5.15	24 S	10.7	11.4	193 S	190	12
13	8.61	12	8.93	4.99	13	5.60	11.5	104 S	107	13
14	8.21	14 S	8.93	4.95	10 S	4.28	9.08	59	46.3	14
15	8.97	27	20.9	5.37	29	13.5	6.76	38	22.2	15
16	19.0	130	213	6.85	82 S	47.1	9.70	115 S	96.4	16
17	24.7	87 S	186	6.53	62	35.0	9.74	91	76.6	17
18	15.0	42 S	54.4	6.65	75	43.1	7.96	46 S	31.6	18
19	11.0	29	27.6	16.7	152	219	5.97	31	16.0	19
20	8.91	41	35.1	23.5	171	347	5.11	19 S	8.39	20
21	18.4	88 S	108	19.7	81 S	138	4.58	14	5.54	21
22	15.3	31	41.0	14.6	82	78.2	4.44	21	8.06	22
23	12.0	24 S	24.9	24.0	142	294	6.27	54 S	36.6	23
24	10.0	25	21.6	17.5	87	132	9.76	65	54.8	24
25	9.03	37	21.1	11.5	52	51.7	7.95	62 S	42.6	25
26	8.47	26	18.3	8.81	38	28.9	8.30	43	23.4	26
27	7.82	28	19.2	7.37	31	18.7	7.76	40 S	18.9	27
28	7.41	29 S	18.6	6.72	27	15.7	5.76	38	18.9	28
29	7.19	26	15.5	5.98	26	13.4	5.27	34	15.5	29
30	7.18	18 S	11.2	5.44	24	11.3	4.82	32	13.3	30
31				5.01	20	8.66				31
TOTAL	347.46		1 114.56	272.13		1 618.47	193.92		891.27	TOTAL

B - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

CREDIT RIVER AT ERINDALE - STATION NO. 02HB002

SUSPENDED SEDIMENT FOR 1986

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	4.38	31	11.7	4.16	32 S	11.5	7.90	32	21.8	1
2	4.59	41 S	16.3	3.76	30	9.75	6.67	30	17.8	2
3	4.45	49	18.8	3.46	28	8.37	8.10	28	14.8	3
4	3.96	42 S	14.4	3.21	25	6.93	5.86	188	111	4
5	3.73	31	9.98	3.46	25	7.47	14.9	433	557	5
6	3.63	28	8.78	3.48	28	8.42	6.65	132	75.8	6
7	3.70	28 S	8.95	5.39	54	25.1	4.33	54	20.2	7
8	3.42	30	8.88	6.01	105	54.5	4.29	15 S	5.56	8
9	3.14	31	8.41	5.03	81	26.5	5.11	18	7.95	9
10	3.06	30	7.93	4.59	36	14.3	16.2	366 S	512	10
11	2.91	33 S	8.30	3.98	32 S	11.0	142	847	10 400	11
12	4.84	78	33.7	3.41	22	6.48	84.1	144 S	1 050	12
13	5.04	60	26.1	3.21	12 S	3.33	46.0	47	195	13
14	5.09	53	23.3	3.01	15	3.90	22.3	37	71.3	14
15	4.01	41	14.2	9.30	176 S	141	19.8	70 S	120	15
16	3.51	34	10.3	14.5	133	167	41.9	256	927	16
17	5.87	121	61.4	10.3	87	77.4	20.4	39 S	68.7	17
18	8.87	141	108	8.88	40 S	23.1	11.3	25 S	24.4	18
19	25.5	241	531	5.00	23	9.94	8.35	29 S	20.9	19
20	30.6	202	534	4.18	16 S	5.78	19.7	123	209	20
21	15.0	82 S	106	4.14	23	8.23	25.1	103	223	21
22	8.71	45	33.9	4.11	21 S	7.46	16.5	84	134	22
23	8.27	27	14.6	4.67	33	13.3	57.8	232	1 160	23
24	5.11	22	8.71	5.07	27	11.8	44.9	83 S	322	24
25	4.79	55	22.8	4.61	19	7.57	22.8	54	106	25
26	6.71	75	43.5	14.1	148 S	180	26.0	198 S	445	26
27	6.47	83	35.2	81.8	1 030 S	8 180	55 S	252	1 210	27
28	5.76	83 S	26.4	43.8	356	1 350	19.9	73	128	28
29	5.44	53	24.9	21.1	105	191	88.6	512 S	4 270	29
30	4.47	21 S	8.11	13.2	84	81.8	106	270 S	2 470	30
31	4.83	35	14.6	9.57	41	33.9				31
TOTAL	207.96		1 804.14	322.39		10 866.83	966.16		24 896.21	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	43.6	40	151	7.27	45	28.3	9.46	8 S	6.54	1
2	36.7	84 S	258	9.60	42	34.8	10.9	35	33.0	2
3	25.6	45	99.1	8.25	21 S	15.0	38.5	198 S	652	3
4	31.5	70	191	8.06	28	19.5	30.7	132	350	4
5	32.3	47	131	7.82	20 S	13.2	19.5	57 S	96.0	5
6	22.8	37 S	73.2	7.48	20	12.9	15.1	45	58.7	6
7	18.6	31	49.8	7.68	17 S	11.3	12.4	55	58.9	7
8	16.6	27	38.7	7.76	14	9.39	12.2 B	49 S	51.6	8
9	14.2	21	25.8	8.32	14	10.1	10.1 B	37	32.3	9
10	10.7	14	12.9	8.41	14 S	10.2	15.4 B	52 S	69.2	10
11	8.51	15	12.3	8.32	10	7.18	13.9 B	46	55.2	11
12	8.10	16	12.6	8.27	7 S	5.00	13.0 B	31 S	34.8	12
13	10.3	22	18.6	7.85	8	5.85	7.46 B	28	18.0	13
14	17.8	184	282	7.19	22 S	13.7	8.43 B	66	48.1	14
15	16.8	97 S	141	7.55	15	9.78	11.1 B	76 S	72.9	15
16	12.2	41	43.2	7.24	14	8.76	9.90 B	53	45.3	16
17	9.82	23 S	19.7	7.37	15 S	9.55	9.84 B	48 S	40.8	17
18	9.39	23	18.7	7.66	22	14.6	27.0 B	127	296	18
19	8.85	21	15.7	7.51	21 S	13.6	24.0 B	48 S	99.5	19
20	8.48	22 S	16.1	6.56	25	14.2	15.9 B	34	46.7	20
21	8.34	12	8.65	6.82	37	21.8	11.4 B	28	27.6	21
22	8.35	10 S	7.21	7.42	43	27.6	8.73 B	29	21.9	22
23	8.31	15 S	10.8	8.05	38	27.1	10.2 B	24	21.2	23
24	8.12	22	15.4	14.3	51 S	63.0	11.5 B	112	111	24
25	7.34	15	9.51	17.3	77	115	83.3	243	330	25
26	6.93	15	8.98	32.2	182 S	451	32.6	83	234	26
27	7.75	75 S	50.2	38.9	113	380	21.8	48	90.4	27
28	11.5	107	106	21.8	26 S	49.2	17.6	31	47.1	28
29	9.84	53 S	45.1	16.6	12	17.1	15.5	21	28.1	29
30	8.41	36	26.2	13.2	10	11.4	14.5	12	15.0	30
31	7.22	27	16.8				13.2	9	10.3	31
TOTAL	456.86		1 926.25	332.37		1 430.22	535.12		4 102.14	TOTAL

B - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

ONTARIO

CREDIT RIVER AT ERINDALE - STATION NO. 02HB002

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)		TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 02	08:30	0.1		MID		DH48	2															
JAN 03	08:30	0.1		MID		DH48	6															
JAN 06	08:40	0.1		MID		DIP	1															
JAN 08	08:30	0.1		MID		DIP	1															
JAN 10	08:40	0.1		MID		DH48	106															
JAN 13	10:10	0.1	6.18	MID		DH48	10															
JAN 15	08:40	0.1		MID		DH48	63															
JAN 20	08:30	0.1		MID		DIP	376	429														
JAN 22	08:20	0.1		MID		DIP	31															
JAN 24	08:30	0.1		MID		DIP	17															
FEB 11	13:50	0.1	5.69	MID		DH48	10															
MAR 11	17:45	0.5	69.2	10LB	X	DH48	293	312														
MAR 12	08:20	0.1	31.5	MID		DH48	85															
MAR 13	17:07	0.1	42.3	MID		DH48	187															
MAR 14	08:30	0.5	35.0	MID		DH48	78															
MAR 14	10:05	1.0	34.1	MID		DH48	74															
MAR 17	08:30	0.1	23.1	MID		DH48	43															
MAR 18	08:30	0.1	97.4	MID		DH48	1160	382														
MAR 21	08:30	0.1	30.5	MID		DIP	55															
MAR 24	08:30	2.0	21.5	MID		DH48	75															
MAR 26	08:30	5.0	24.1	MID		DH48	94															
MAR 26	16:58	8.0	26.9	MID		DH48	121	384														
MAR 31	08:30	8.0	18.2	MID		DH48	51															
APR 02	08:30	9.0	13.6	MID		DH48	33															
APR 04	08:30	8.0	10.9	MID		DH48	15															
APR 07	08:30	8.0	13.8	MID		DH48	18	484														
APR 09	08:30	7.0	10.5	MID		DH48	15															
APR 10	13:45	5.0	9.66	MID		DH48	11															
APR 11	08:30	8.0	9.52	MID		DH48	13															
APR 14	08:30	7.0	8.33	MID		DH48	12															
APR 17	12:25	9.0	23.6	MID		DH48	72	528														
APR 18	08:30	9.0	15.8	MID		DH48	44															
APR 21	08:30	10.0	18.8	MID		DH48	80	514														
APR 23	08:30	9.0	12.2	MID		DH48	24															
APR 28	07:30	15.0	7.55	MID		DH48	27															
APR 30	07:30	11.0	7.32	MID		DH48	17															
MAY 02	07:30	7.5	6.87	MID		DH48	16															
MAY 05	07:30	11.0	5.97	MID		DH48	11	419														
MAY 07	07:30	15.5	5.78	MID		DH48	14															
MAY 07	11:15	19.0	5.72	MID		DH48	20															
MAY 09	07:30	14.0	5.51	MID		DH48	26															
MAY 12	07:30	13.5	5.12	MID		DH48	28															
MAY 14	07:30	13.5	4.98	MID		DH48	13	508														
MAY 16	07:30	15.5	7.23	MID		DH48	88															
MAY 21	07:30	12.0	20.9	MID		DH48	85	488														
JUN 02	07:30	14.0	4.98	MID		DH48	19															
JUN 04	07:30	14.0	4.42	MID		DH48	9															
JUN 06	07:30	15.0	4.65	MID		DH48	20															
JUN 09	07:30	16.0	4.98	MID		DH48	20															
JUN 12	08:00	16.0	12.6	MID		DH48	241	460														
JUN 13	07:40	15.5	12.5	MID		DH48	112	514														
JUN 16	07:30	17.0	5.87	MID		DH48	37															
JUN 18	07:45	15.0	8.28	MID		DH48	48	438														
JUN 20	07:30	17.0	5.12	MID		DH48	15															
JUN 23	07:30	20.0	7.55	MID		DH48	49															
JUN 25	07:30	15.0	8.87	MID		DH48	43	434														
JUN 25	08:45	15.0	7.76	MID		DH48	63															
JUN 27	07:30	15.0	5.39	MID		DH48	32															
JUL 02	07:30	18.0	4.42	MID		DH48	39	489														
JUL 04	07:30	18.0	4.07	MID		DH48	42															
JUL 07	07:30	25.0	3.84	MID		DH48	26															
JUL 11	07:30	18.0	2.89	MID		DH48	30															
JUL 21	07:30	20.5	17.2	MID		DH48	89															
JUL 28	11:30	23.0	5.92	MID		DH48	50															
JUL 30	07:30	20.5	4.60	MID		DH48	31															
AUG 01	07:30	22.0	4.51	MID		DH48	32															
AUG 11	07:30	18.0	4.20	MID		DH48	31															
AUG 13	07:45	17.0	3.35	MID		DH48	12															
AUG 15	07:45	20.0	4.51	MID		DH48	40	461														
AUG 18	07:30	21.0	7.10	MID		DH48	44															
AUG 20	07:30	19.0	4.51	MID		DH48	16															
AUG 22	07:30	18.0	4.29	MID		DH48	18															
AUG 26	11:40	21.0	4.58	MID		DH48	28															
AUG 27	07:20	18.0	128	MID		DH48	1340	367														
SEP 08	07:30	11.0	4.18	MID		DH48	13															
SEP 10	07:30	15.0	4.42	MID		DH48	38															
SEP 12	07:30	17.0	91.8	MID		DH48	187	433														
SEP 15	07:30	12.0	12.5	MID		DH48	30															
SEP 17	07:30	8.0	23.0	MID		DH48	40															
SEP 17	13:30	8.0	20.0	MID		DH48	26															
SEP 18	08:05	10.0	11.9	MID		DH48	26															
SEP 18	08:05	13.0	8.68	MID		DH48	27															
SEP 24	08:05	14.0	48.9	MID		DH48	85	393														
SEP 25	08:05	14.0	13.6	MID		DH48	50															
SEP 25	08:05	14.0	17.2	MID		DH48	71															
SEP 30	18:15	20.0	71.7	MID		SURF	186	311														
OCT 02	07:30	15.0	45.8	MID		DH48	128	341														
OCT 08	07:30	10.0	23.5	MID		DH48	38															
OCT 15	07:40	8.5	17.4	MID		DH48	107															
OCT 17	07:30	8.0	9.80	MID		DH48	20															
OCT 20	07:30	6.0	8.48	MID		DH48	25															
OCT 22	07:30	8.0	8.33	MID		DH48	9	339														
OCT 23	12:05	8.0	8.08	MID		DH48	10															
OCT 23	12:50	8.0	8.38	MID		DH48	17															
OCT 27	08:30	9.0	7.32	MID		DH48	53															
OCT 28	08:30	9.0	9.95	MID		DH48	56	424														
NOV 03	08:30	5.0	8.28	MID		DH48	21															
NOV 05	08:30	3.0	7.70	MID		DH48	21															
NOV 07	08:30	5.0	7.70	MID		DH48	15															
NOV 10	08:30	3.0	8.58	MID		DH48	12															
NOV 12	08:30	2.0	8.35	MID		DH48	7															
NOV 14	08:30	0.1	7.41	MID		DH48	20															
NOV 17	08:30	2.0	7.37	MID		DH48	14															

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

CONTINUED

CREDIT RIVER AT ERINDALE - STATION NO. 02HB002 (CONTINUED)

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)		SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
NOV 19	08:30	0.1	7.75		MID	DH48	21															
NOV 24	08:30	3.0	13.3		MID	DH48	41															
NOV 26	08:30	2.0	15.9		MID	DH48	53															
NOV 28	08:30	2.0	23.0		MID	DH48	29	403														
DEC 01	08:30	0.1	9.12		MID	DH48	5															
DEC 01	10:55	0.1	8.83		MID	DH48	4															
DEC 03	08:30	0.5	30.2		MID	DH48	78	622														
DEC 05	08:30	0.1	20.4		MID	DH48	57															
DEC 08	08:30	0.1	12.2	W	MID	DH48	53															
DEC 10	08:30	0.1	15.4	W	MID	DH48	56															
DEC 12	08:30	0.1	13.0	W	MID	DH48	32															
DEC 15	08:30	0.1	11.1	W	MID	DH48	78															
DEC 17	08:30	0.5	8.84	W	MID	DH48	42															
DEC 19	08:30	1.5	24.0	W	MID	DH48	48	630														

NOTE SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1986

DISCHARGE SYMBOL(S): W - DAILY MEAN, ICE CONDITIONS

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY - JAN-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1973	-------CCCCC	DUAL	260	NOV 15	1	OCT 08	353	OCT 30	3 400	---	---	---
1974	CCCCCCCCCCCC	DUAL	3 030	MAY 17 *	1	SEP 05	85 200	MAY 17 *	133 000 *	383	383	---
1975	CCCCCCCCCCCC	MANUAL	1 920	APR 19	1	JAN 06	30 200	APR 19	70 100	192	278	30.8
1976	CCCCCCCCCCCC	MANUAL	1 030	MAR 20	3	JUL 19	14 100	MAR 20	53 600	148	234	28.2
1977	CCCCCCCCCCCC	MANUAL	993	MAR 13	4	MAY 16	12 700	MAR 13	45 600	125	207	26.1
1978	CCCCCCCCCCCC	MANUAL	818	APR 01	3	OCT 02	5 540	APR 01	28 700	78.7	181	27.1
1979	CCCCCCCCCCCC	MANUAL	717	DEC 24	1	SEP 22	8 460	DEC 25	46 500	127	172	23.8
1980	CCCCCCCCCCCC	MANUAL	1 270	MAR 21	3	OCT 15	6 690	MAR 21	30 900	84.5	159	23.2
1981	CCCCCCCCCCCC	MANUAL	824	SEP 04	1	SEP 18	6 370	FEB 19	38 700	106	153	21.3
1982	CCCCCCCCCCCC	MANUAL	1 770	MAR 31	1	JAN 11	15 800	MAR 31	50 400	138	151	19.1
1983	CCCCCCCCCCCC	MANUAL	329	DEC 12	1	APR 22	1 870	FEB 03	22 100	60.4	142	19.2
1984	CCCCCCCCCCCC	MANUAL	745	APR 05	0	JAN 16 *	---	---	---	---	---	---
1985	CCCCCCCCCCCC	MANUAL	1 890	FEB 28	3	MAY 17	---	---	---	---	---	---
1986	CCCCCCCCCCCC	MANUAL	1 340	AUG 27	1	JAN 06	10 400	SEP 11	60 600	---	---	---

DUAL - MANUAL AND AUTOMATIC SAMPLING MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH * - EXTREME FOR PERIOD OF RECORD

ONTARIO

DON RIVER AT TODMORDEN - STATION NO. 02HC024

SUSPENDED SEDIMENT FOR 1985

LOCATION LAT 43 41 50 N LONG 79 21 15 W
DRAINAGE AREA 316 km²
TYPE OF FLOW REGULATED SINCE 1973
TYPE OF GAUGE RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 167 000 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS

DAY	JAN DAILY DISCHARGE (m³/s)	JAN MEAN CONCENTRATION (mg/L)	JAN DAILY LOAD (t)	FEB DAILY DISCHARGE (m³/s)	FEB MEAN CONCENTRATION (mg/L)	FEB DAILY LOAD (t)	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	DAY
1	1.86	25	4.23	1.79	30	4.64	1.65	16	2.68	1
2	1.87	23	3.72	1.95	36	6.07	1.92	16	2.65	2
3	2.01	25	4.34	2.02	44	7.68	2.70	50	11.7	3
4	1.78	25	3.84	2.27	118	22.8	3.36	31	9.00	4
5	1.89	25	4.04	5.22	189 S	151	4.10	64 S	22.7	5
6	1.85	24	3.84	3.48	60	18.0	3.53	61	18.6	6
7	1.71	25	3.69	1.84	34	5.41	2.12	36	6.59	7
8	1.68	27	3.94	2.22	35	6.71	1.88	26	4.22	8
9	1.62	27	4.25	2.19	34	6.43	2.31	18	3.59	9
10	1.87	25	4.04	2.03	21	3.88	10.4	194 E	174	10
11	1.88	26	4.22	1.87	13	2.10	29.3	252 S	638	11
12	2.03	26	4.56	1.84	9	1.43	14.5	62	77.7	12
13	1.98	26	4.47	1.61	3 S	0.47	21.5	208 S	388	13
14	1.56	25	3.37	1.61	5	0.78	15.3	208 S	275	14
15	1.82	25	3.50	1.74	7	1.05	17.9	195 S	302	15
16	1.80	37	5.75	1.73	8	1.20	12.2	143	151	16
17	4.24	218 S	80.2	1.85	9	1.47	11.1	117	112	17
18	4.83	206 S	82.4	2.38	11	2.26	9.91	110 S	94.2	18
19	7.47	557 S	359	3.98	31	10.7	25.3	525 S	388	19
20	17.7	878 S	1 340	5.07	46 S	20.2	12.1	258 S	270	20
21	4.83	448 S	187	5.95	65	33.5	5.31	126 S	57.8	21
22	4.84	110 S	46.0	2.83	34	7.73	3.30	105 S	29.9	22
23	3.63	48	15.4	2.40	18	3.84	3.63	91 S	27.8	23
24	2.31	42	8.38	2.20	17	3.23	3.35	44 S	12.7	24
25	2.39	53	10.9	1.94	17	2.85	2.98	26 S	8.44	25
26	2.56	62	13.7	1.79	15	2.47	4.56	50 S	19.7	26
27	1.84	46	7.31	1.54	16	2.13	8.58	93 S	52.9	27
28	1.55	44	5.42	1.68	14	2.03	4.24	49	18.0	28
29	2.01	63	10.9				3.82	42	14.2	29
30	1.89	51	8.33				3.65	42	14.0	30
31	1.85	39	6.23				3.43	40	11.9	31
TOTAL	93.21		2 248.01	73.27		332.36	248.53		3 577.17	TOTAL

DAY	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	DAY
1	3.12	39	10.5	2.09	10 S	1.81	1.74	30	4.81	1
2	3.00	35 S	9.07	1.83	14	2.33	1.83	30	4.74	2
3	2.56	30	6.84	1.80	14	2.18	1.56	22	2.87	3
4	2.63	25	5.84	1.72	18	2.82	1.59	20	2.75	4
5	3.58	89 S	27.5	1.89	23	3.38	2.80	61	18.8	5
6	4.12	125	44.5	2.33	43	8.66	2.08	43	7.85	6
7	2.90	33 S	6.37	1.87	33	5.33	1.76	32	4.87	7
8	2.81	18	4.37	1.71	28	4.14	6.01	134	69.6	8
9	2.44	18	3.37	1.65	30	4.28	2.19	28	5.49	9
10	2.30	12	2.38	1.66	34	4.88	1.84	88	14.0	10
11	2.61	19 S	4.28	1.67	30	4.33	9.15	200	158	11
12	2.29	17	3.36	1.67	31	4.47	7.60	154	101	12
13	2.10	15 S	2.72	1.63	28	3.94	3.12	60 S	16.2	13
14	2.02	14	2.44	1.65	27	5.27	2.20	40	7.80	14
15	4.60	76 S	30.3	2.83	56	13.7	1.87	31	5.01	15
16	9.77	173	146	7.43	151	86.9	3.35	121	35.0	16
17	5.54	79	37.6	2.58	52	11.5	3.44	112	33.3	17
18	3.40	50	14.7	5.31	174 E	78.8	2.03	80	10.5	18
19	2.78	32	7.89	17.3	232 E	347	1.83	53	8.38	19
20	3.14	75	20.3	10.4	130	117	1.75	45	6.86	20
21	7.91	133	90.9	4.95	44	18.8	1.69	28	5.22	21
22	3.21	39 S	8.04	8.70	128	96.2	2.35	75	15.2	22
23	2.72	21	4.94	6.80	111	62.3	7.97	124	85.4	23
24	2.36	22	4.49	2.64	41	10.1	6.16	132	70.3	24
25	2.23	16	3.08	2.32	29	8.81	2.80	51 S	12.3	25
26	2.11	16	2.82	2.13	27	4.95	2.20	40	7.80	26
27	2.07	15	2.68	1.86	26	8.40	4.49	113	43.8	27
28	2.03	13	2.28	1.83	26	4.17	2.36	53	10.9	28
29	2.03	11	1.92	1.82	25	3.83	1.86	46	7.62	29
30	1.96	9	1.16	1.76	23	3.46	1.81	37	5.79	30
31				1.67	26	4.52				31
TOTAL	96.33		514.21	107.46		941.36	93.47		782.38	TOTAL

E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

DON RIVER AT TODMORDEN - STATION NO. 02HC024

SUSPENDED SEDIMENT FOR 1986

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	1.45	30	3.76	15.2	403 S	529	2.45	70	14.8	1
2	3.03	79	20.7	7.25	362	227	2.22	45	8.63	2
3	1.67	37	5.34	5.19	280 S	138	2.17	33	8.19	3
4	1.48	29	3.71	3.24	202 S	56.5	4.36	347	121	4
5	1.56	24	3.23	5.82	336 S	119	10.2	516 S	455	5
6	1.44	22	2.74	3.93	248 S	84.2	2.95	82 S	15.8	6
7	1.40	16	2.16	16.9	807 S	686	3.44	76 S	16.0	7
8	1.36	15	1.76	6.76	332 S	138	2.18	88 S	13.6	8
9	1.38	15	1.79	7.04	332 S	202	2.01	42 S	7.35	9
10	1.34	15	1.74	2.34	59 S	17.0	28.1	2 490 S	6 530	10
11	1.32	13	1.48	3.20	55 S	15.2	85.6	8 760 S	64 800	11
12	5.86	140	71.1	2.40	52 S	10.6	30.6	3 080	8 140	12
13	5.42	124	58.1	1.82	45 S	7.46	6.13	424	225	13
14	2.96	56	14.6	1.60	34 S	3.73	4.58	124	49.2	14
15	1.81	16	2.50	49.9 E	3 160 E	13 700	11.1	854	819	15
16	1.73	14 S	2.09	20.0	3 180 S	5 500	8.79	635	537	16
17	5.25	217 S	100	7.03	361 S	219	6.11	321	169	17
18	13.4	544 S	630	5.70	97 S	47.6	4.32	187	68.6	18
19	10.5	784 S	711	3.97	70 S	24.0	3.80	141	46.3	19
20	9.67	465 S	389	2.41	47 S	9.78	15.5	1 800 E	2 870	20
21	3.98	39 S	13.4	2.34	80 S	12.1	5.75	303	152	21
22	2.37	23 S	4.71	2.18	54 S	10.2	4.63	423	250	22
23	1.92	16 S	2.85	9.14	1 120 S	888	32.2	1 220 S	3 390	23
24	1.77	6 S	1.22	4.12	251 S	89.3	13.4	335	359	24
25	3.34	139 S	40.1	2.43	94 S	11.3	11.6	259	260	25
26	9.60	347 S	288	13.1	1 120 S	1 270	6.47	164	86.1	26
27	2.75	36 S	8.55	75.4 E	3 930 E	25 600	5.30	77	34.6	27
28	2.02	13 S	2.37	13.7	673	738	4.06	65	19.3	28
29	3.74	98 S	31.7	10.3	427	380	36.4	855 E	2 700	29
30	3.09	26 S	5.06	8.77	238	180	33.5	594	1 670	30
31	2.06	28 S	5.03	2.92	88	22.2				31
TOTAL	109.81		2 429.71	317.46		51 134.58	389.05		93 933.81	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	15.0	222	288	3.15	104	28.4	2.31	34	6.78	1
2	15.7	313	423	5.63	180	87.6	7.34	309	196	2
3	9.82	177	152	2.75	67	15.9	18.4	805	952	3
4	12.5	323	349	2.71	61	14.3	7.06	173	105	4
5	7.89	151	103	2.37	56	11.5	5.31	76	35.8	5
6	7.17	130	74.3	2.21	44	8.40	3.40	53	15.6	6
7	6.33	138	74.3	2.18	40	7.53	4.69	81	26.9	7
8	4.36	118	44.8	2.27	41	8.04	3.81	81	20.1	8
9	2.48	78	23.6	2.78	84	15.6	6.50	152	85.4	9
10	2.98	62	16.0	2.03	43	7.84	6.24	127	68.9	10
11	2.58	87	12.7	2.25	41	7.97	3.02	32 S	8.35	11
12	2.69	73	16.3	2.18	32	5.97	2.51	28	6.29	12
13	5.30	173	79.2	2.00	25	4.32	1.84	26	4.39	13
14	11.7	393	397	1.85	27	4.55	2.21	32	6.11	14
15	4.66	46	18.1	1.91	32	5.26	2.46	48	10.3	15
16	3.89	31	10.7	1.90	35	5.81	2.64	58	13.2	16
17	3.55	30	9.20	2.18	57	10.7	2.62	58	13.4	17
18	2.92	23	5.80	2.23	57	11.0	17.9	853	1 330	18
19	2.46	32	6.86	2.01	45	7.81	6.44	149	82.9	19
20	2.70	33	7.70	2.07	43 S	7.69	4.41	65	24.8	20
21	2.41	23	4.79	2.71	63	14.5	3.78	55	18.0	21
22	2.24	13 S	2.52	2.64	62	14.1	3.54	43	13.2	22
23	2.28	28 S	5.89	4.62	113	45.1	3.28	36	10.3	23
24	2.29	40	7.91	5.21	95	42.8	7.12	852 E	401	24
25	2.23	31	5.97	3.50	36 S	10.5	31.6	1 390 E	3 820	25
26	2.23	26	5.01	10.8	351	327	8.99	244	187	26
27	7.35	261	163	7.21	148	82.3	5.19	111	49.6	27
28	4.60	133	52.9	3.99	74	25.5	4.56	69	27.1	28
29	3.05	77	20.3	3.04	57	15.0	4.18	62	22.4	29
30	2.67	61	14.1	2.54	37	8.12	3.85	62	21.2	30
31	2.32	59	11.8				3.69	57	19.2	31
TOTAL	161.47		2 406.65	95.02		880.73	189.48		7 580.90	TOTAL

E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

ONTARIO

DON RIVER AT TODMORDEN - STATION NO. 02HC024

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 17	15:30		1.78	10.0	PS82	224															
JAN 18	15:30		3.78	10.0	PS82	230															
JAN 19	15:30		4.96	10.0	PS82	969															
JAN 20	15:30		16.1	10.0	PS82	795	911	13	16	21	44	68	89	96	99	100			11	73	16
JAN 21	15:30		4.17	10.0	PS82	600															
JAN 22	10:00	2.0	4.67	10.0	PS82	750															
FEB 05	10:00		7.95	10.0	PS82	57															
FEB 13	12:35	1.0	1.98	10.0	DH48	3	1430														
FEB 20	15:00	1.0	4.76	10.0	DH48	48	2290														
MAR 05	12:00	2.0	2.82	10.0	DH48	34															
MAR 12	11:20		27.7	10.0	PS82	190	1310														
MAR 12	14:20		28.8	10.0	PS82	266															
MAR 12	17:20		26.6	10.0	PS82	322															
MAR 12	20:20		26.2	10.0	PS82	264															
MAR 12	23:20		20.3	10.0	PS82	208															
MAR 14	02:20		16.2	10.0	PS82	135															
MAR 14	05:20		13.7	10.0	PS82	112															
MAR 14	08:20		12.3	10.0	PS82	140															
MAR 14	11:20		12.0	10.0	PS82	185															
MAR 14	14:20		13.0	10.0	PS82	230															
MAR 14	17:20		18.1	10.0	PS82	272															
MAR 14	20:20		19.6	10.0	PS82	295															
MAR 14	23:20		18.3	10.0	PS82	259															
MAR 15	02:20		19.0	10.0	PS82	116															
MAR 15	05:20		18.0	10.0	PS82	147															
MAR 15	08:20		15.3	10.0	PS82	202															
MAR 15	11:20		13.7	10.0	PS82	298															
MAR 15	14:20		17.2	10.0	PS82	307															
MAR 15	17:20		21.5	10.0	PS82	216															
MAR 18	16:00		9.25	10.0	DH48	137	674														
MAR 18	19:00		9.61	10.0	PS82	139															
MAR 18	22:00		7.35	10.0	PS82	55															
MAR 19	01:00		7.26	10.0	PS82	45															
MAR 19	04:00		35.5	10.0	PS82	262															
MAR 19	07:00		34.7	10.0	PS82	566															
MAR 19	10:00		29.9	10.0	PS82	744															
MAR 19	13:00		25.3	10.0	PS82	725															
MAR 19	16:00		24.9	10.0	PS82	853															
MAR 19	19:00		22.8	10.0	PS82	963															
MAR 19	22:00		23.1	10.0	PS82	409															
MAR 20	01:00		19.1	10.0	PS82	286															
MAR 20	04:00		15.7	10.0	PS82	281															
MAR 20	10:40	1.0	11.3	10.0	DH48	282	471														
MAR 22	10:30		3.11	10.0	PS82	102															
MAR 23	10:30		3.50	10.0	PS82	99															
MAR 24	10:30		3.45	10.0	PS82	43															
MAR 25	10:30		3.18	10.0	PS82	26															
MAR 26	10:30		3.63	10.0	PS82	14															
MAR 27	12:15		7.24	10.0	DH48	121	790														
APR 02	13:15		3.20	10.0	PS82	35															
APR 05	13:15		2.74	10.0	PS82	19															
APR 06	13:15		3.78	10.0	PS82	111															
APR 07	13:15		3.04	10.0	PS82	19															
APR 11	08:20	8.0	2.35	10.0	DH48	9															
APR 13	13:15		2.12	10.0	PS82	15															
APR 19	13:15		5.87	10.0	PS82	90															
APR 22	11:50	5.0	3.15	10.0	DH48	34	756														
MAY 01	12:25	10.0	1.96	10.0	DH48	6	826														
JUN 13	12:35		3.02	10.0	DH48	54	846														
JUN 25	13:40		2.81	10.0	DH48	48	949														
JUL 16	09:50	24.0	1.83	10.0	DH48	15	636														
JUL 16	12:00	24.0	1.65	10.0	PS82	13															
JUL 17	11:30		8.20	10.0	PS82	248															
JUL 17	11:43		10.2	10.0	DH59	350	533														
JUL 17	11:55		15.5	10.0	PS82	587															
JUL 17	12:03		17.2	10.0	PS82	634															
JUL 17	12:11		18.3	10.0	PS82	651															
JUL 17	12:13		18.4	10.0	DH59	747	481														
JUL 17	12:19		18.5	10.0	PS82	778															
JUL 17	12:19		18.7	10.0	PS82	763															
JUL 17	12:24		19.1	10.0	PS82	887															
JUL 17	12:28		18.0	10.0	PS82	780															
JUL 17	12:32		19.1	10.0	PS82	763															
JUL 17	12:37		19.0	10.0	DH59	776	539														
JUL 17	12:42		18.9	10.0	PS82	753															
JUL 17	12:50		18.6	10.0	PS82	740															
JUL 17	12:57		18.3	10.0	DH59	744	535														
JUL 17	12:58		18.1	10.0	PS82	712															
JUL 17	13:05		17.0	10.0	PS82	723															
JUL 18	13:05		4.91	10.0	PS82	108															
JUL 19	13:05		4.56	10.0	PS82	660															
JUL 20	13:05		33.0	10.0	PS82	835															
JUL 21	13:05		4.00	10.0	PS82	43															
JUL 22	13:05		2.30	10.0	PS82	19															
JUL 23	13:05		1.93	10.0	PS82	15															
JUL 24	13:05		1.78	10.0	PS82	7															
JUL 25	13:05		1.80	10.0	PS82	3															
JUL 26	13:05		4.70	10.0	PS82	180															
JUL 27	13:05		2.70	10.0	PS82	28															
JUL 28	13:05		2.03	10.0	PS82	6															
JUL 29	14:25		2.59	10.0	DH48	49	489														
JUL 30	14:25		1.99	10.0	PS82	7															
JUL 31	14:25		1.87	10.0	PS82	7															
AUG 01	14:25		2.78	10.0	PS82	13															
AUG 03	14:25		2.99	10.0	PS82	206															
AUG 04	14:25		2.88	10.0	PS82	156															
AUG 05	14:25		3.06	10.0	PS82	103															
AUG 06	14:25		3.26	10.0	PS82	201															
AUG 07	14:25		11.6	10.0	PS82	505															
AUG 08	14:25		3.88	10.0	PS82	101															
AUG 09	14:25		4.54	10.0	PS82	261															
AUG 10	14:25		2.99	10.0	PS82	61															
AUG 11	11:35		2.97	10.0	DH48	39	704														

NOTE : SINGLE VERTICAL LOCATED AT 10 METRES FOR 1986

CONTINUED

OSA RIVER AT TODMORDEN - STATION NO. 02HC024 (CONTINUED)

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
AUG	12	11:45		2.42	10.0	PS82	33														
AUG	13	11:45		1.95	10.0	PS82	14														
AUG	14	11:45		1.83	10.0	PS82	10														
AUG	15	11:45		22.6	10.0	PS82	1290														
AUG	16	11:45		11.4	10.0	PS82	2660														
AUG	17	11:45		4.02	10.0	PS82	309														
AUG	18	13:15		5.67	10.0	PS82	106														
AUG	19	12:30		4.08	10.0	DH48	48	825													
AUG	20	12:30		2.31	10.0	PS82	36														
AUG	21	12:30		2.14	10.0	PS82	23														
AUG	22	12:30		2.21	10.0	PS82	21														
AUG	23	12:30		3.98	10.0	PS82	1040														
AUG	24	12:30		3.50	10.0	PS82	83														
AUG	25	12:30		2.96	10.0	PS82	59														
AUG	26	10:45		2.61	10.0	DH48	31	564													
SEP	09	10:45		4.99	10.0	PS82	139														
SEP	08	10:45		2.55	10.0	PS82	73														
SEP	07	10:45		2.37	10.0	PS82	60														
SEP	06	10:45		2.17	10.0	PS82	45														
SEP	09	10:45		1.88	10.0	PS82	30														
SEP	10	10:45		2.14	10.0	PS82	45														
SEP	11	10:45		71.0	10.0	PS82	6820														
SEP	22	11:50		6.31	10.0	DH59	843	387													
OCT	22	10:30	8.0	3.38	10.0	DH48	8														
OCT	22	10:00		3.08	10.0	DH48	28	786													
NOV	28	10:00		3.27	10.0	DH48	14	767													
DEC	11	12:40		2.90	10.0	DH48	24	1940													

NOTE SINGLE VERTICAL LOCATED AT 10 METRES FOR 1986

BED MATERIAL PARTICLE-SIZE ANALYSIS FOR 1986

DATE	TIME	PANEL DISCHARGE (m³/s)	SAMPLING VERTICAL (m)	TYPE OF SAMPLER	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	4.00	8.00	16.00	32.00	64.00
APR	09	09:05	2.16	WEB2	SCOOP			9	35	81	95	100							
APR	08	08:07		2	SCOOP			1	3	32	83	88	99	100					
APR	08	09:30		7	SCOOP				1	12	70	88	93	98	100				
APR	08	08:33		03	SCOOP				1	8	33	55	86	78	87	97	100		
APR	08	08:25		05	SCOOP				1	3	13	21	28	37	48	64	80	100	
APR	08	08:37		03	SCOOP														
APR	08	08:30		WEB8	SCOOP		1	4	14	53	90	95	100							

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM		MINIMUM		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY		TOTAL FOR PERIOD	SUMMARY MEAN LOAD	HISTORICAL MEAN LOAD	STANDARD ERROR OF MEAN %
	(JFMAMJJASOND)		(mg/L)		(mg/L)		(TONNES)		(TONNES)	(TONNES)	(TONNES)	
1985	---P-PP-PEEE	DUAL	1 270	NOV 04	6	OCT 30	2 900	NOV 04	5 770	---	---	---
1986	EEEEEEEEEEEE	DUAL	8 820	SEP 11 *	3	FEB 13 *	84 800	SEP 11 *	187 000 *	457	457	---

DUAL - MANUAL AND AUTOMATIC SAMPLING

E - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ONTARIO

ETOBICOKE CREEK BELOW QUEEN ELIZABETH HIGHWAY - STATION NO. 02HC030

LOCATION: LAT 43 36 02 N LONG 079 33 24 W
DRAINAGE AREA: 204 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
FEB 18	14:20	0.5	1.96	13.0	DH48	63	3590														
MAR 05	14:10	2.0	2.13	13.0	DH48	77	1510														
MAR 25	13:50		2.11	13.0	DH48	37	532														
APR 11	09:45		1.06	13.0	DH48	5	999														
MAY 01	12:00	9.0	0.783	13.0	DH48	5	829														
JUL 14	12:10		2.03	13.0	DH59	355	371														
AUG 27	10:38		40.9	13.0	DH59	805	283														
SEP 09	10:25		0.863	13.0	DH48	5	881														
SEP 11	13:30		81.4	13.0	DH59	1100	318														
SEP 23	09:40		32.2	13.0	DH59	440	421														
OCT 07	09:55		2.44	13.0	DH48	17	616														
NOV 24	09:25		4.18	13.0	DH48	58	860														
DEC 10	09:40	1.0	4.00	13.0	DH48	80	2430														

NOTE : SINGLE VERTICAL LOCATED AT 13 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---P-PPPPPPP	MANUAL	883	AUG 26	3	OCT 31 *	---	---	---	---	---	---
1986	-PPPP-PPPPPP	MANUAL	1 100	SEP 11 *	5	APR 11	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

FAIRCHILD CREEK NEAR BRANTFORD - STATION NO. 02GB007

LOCATION: LAT 43 08 49 N LONG 080 09 18 W
DRAINAGE AREA: 380 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)		TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 21	13:55	0.1	27.1	13.0		DH59	63	451														
APR 10	10:45	6.0	2.32	6.0	X	DH48	29	452														
JUN 03	11:02	18.0	1.30	6.0	X	DH48	80	545														
JUL 22	10:35	24.0	6.23	6.0	X	DH48	181	543														
OCT 01	09:50		15.4	13.0		DH59	193	528														

NOTE : SINGLE VERTICAL LOCATED AT 13 METRES FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	--P-P-P---P-	MANUAL	198	MAR 13 *	34	MAY 09	---	---	---	---	---	---
1986	--PP-PP--P--	MANUAL	193	OCT 01	29	APR 10 *	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

GANARASKA RIVER ABOVE DALE - STATION NO. 02HD012

LOCATION: LAT 43 59 26 N LONG 078 19 43 W
DRAINAGE AREA: 332 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 19	16:30	0.5	46.6	6.5	DH59	1100	442														
MAR 20	08:30	0.1	9.58	6.5	DH59	81	203														
MAR 26	12:00		5.28	6.5	DH59	46	332														
MAY 13	12:40		1.83	6.5	DH48	17	245														
AUG 27	11:10		17.4	6.5	DH59	405	179														

NOTE SINGLE VERTICAL LOCATED AT 6.5 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1985	-PPPP---PPPP	MANUAL	976	MAR 12	3	DEC 11 *	---	---	---	---	---	---
1986	--P-P--P----	MANUAL	1 100	MAR 19 *	17	MAY 13	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

COULAIS RIVER NEAR SEARCHMONT - STATION NO. 028F002

LOCATION: LAT 48 51 37 N LONG 083 56 15 W
DRAINAGE AREA: 1 180 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED APR 1986

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 08	10:50	0.5	77.1	23.0	DH59	36	236														
JUN 11	16:00	16.0	9.43	44.0 X	DH48	3	269														

NOTE SINGLE VERTICAL LOCATED AT 23 METRES FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1986	---P-P------	MANUAL	38	APR 08 *	3	JUN 11 *	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ONTARIO

GRAND RIVER AT BRANTFORD - STATION NO. 02GB001

LOCATION LAT 43 07 55 N LONG 080 15 01 W
DRAINAGE AREA 6 310 km²
TYPE OF FLOW REGULATED SINCE 1943
TYPE OF GAUGE RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JUN 04	14 20	22.0	30.0	30.0 X	DH48	7	501														

NOTE SINGLE VERTICAL LOCATED AT 80 METRES FOR 1986

VERTICAL SYMBOL(S) X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1975	---P--------	MANUAL	1 370	APR 20 *	282	APR 21	---	---	---	---	---	---
1985	-PP-P--P--P-	MANUAL	578	MAR 30	3	MAY 26 *	---	---	---	---	---	---
1986	-----P------	MANUAL	7	JUN 04	7	JUN 04	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

GRAVEL RIVER NEAR CAVERS - STATION NO. 03AE001

LOCATION LAT 48 55 34 N LONG 087 41 27 W
DRAINAGE AREA 616 km²
TYPE OF FLOW NATURAL
TYPE OF GAUGE RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 24	10 20	3.5	20.0	14.0	D49	15	123														
JUL 30	09 30	20.0	4.46	14.0	D49	4	197														

NOTE - SINGLE VERTICAL LOCATED AT 14 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	------P-PP--	MANUAL	3	SEP 11	1	JUL 13 *	---	---	---	---	---	---
1986	---P--P------	MANUAL	15	APR 24 *	4	JUL 30	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

HIGHLAND CREEK NEAR WEST HILL - STATION NO. 02HC013

LOCATION LAT 43 46 45 N LONG 079 10 26 W
DRAINAGE AREA 88.1 km²
TYPE OF FLOW NATURAL
TYPE OF GAUGE RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	PERCENT SILT	PERCENT CLAY
FEB 21	08 05		2.39	12.0	DH48	73	1900														
MAR 13	10 15		11.6	12.0	DH59	371	1930														
MAR 18	11 10	4.0	0.980	12.0	DH48	12	677														
MAR 19	08:40		12.7	12.0	DH59	479	420														
APR 09	10 05	5.0	0.607	12.0	DH48	15	961														
MAY 02	09 55	9.0	0.510	12.0	DH48	24	909														
JUN 13	10 05		0.710	12.0	DH48	17	561														
JUN 25	11 45		0.453	12.0	DH48	4	590														
JUL 29	09 35	21.0	2.95	12.0	DH48	77	391														
AUG 11	10 05		0.670	12.0	DH48	3	895														
AUG 21	12 10		0.557	12.0	DH48	7	757														
AUG 28	13 00	17.5	1.23	12.0	DH48	115	625														
SEP 23	13 00		9.66	12.0	DH59	435	385														
OCT 08	08 00		0.868	12.0	DH48	19	929														
NOV 26	10 00		1.84	12.0	DH48	2															
DEC 08	11 50	2.0	0.798	12.0	DH48	18	1140														

NOTE : SINGLE VERTICAL LOCATED AT 12 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---P-PP-PPPP	MANUAL	888	SEP 26 *	0	JUN 11 *	---	---	---	---	---	---
1986	-PPPPPPPPPPP	MANUAL	479	MAR 19	2	NOV 26	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

ONTARIO

NUMBER RIVER AT ELDER MILLS - STATION NO. 02HC025

SUSPENDED SEDIMENT FOR 1986

LOCATION LAT 43 48 39 N LONG 79 37 38 W
DRAINAGE AREA 303 km²
TYPE OF FLOW NATURAL
TYPE OF GAUGE RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 38 800 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS

DAY	JAN DAILY DISCHARGE (m³/s)	JAN MEAN CONCENTRATION (mg/L)	JAN DAILY LOAD (t)	FEB DAILY DISCHARGE (m³/s)	FEB MEAN CONCENTRATION (mg/L)	FEB DAILY LOAD (t)	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	DAY
1	1.69 B	19	2.77	1.84 B	36	5.10	1.47 B	30	3.81	1
2	1.68 B	24 S	3.48	1.74 B	37 S	5.56	1.47 B	30	3.81	2
3	1.67 B	32	4.62	1.86 B	34	5.52	1.53 B	32	4.23	3
4	1.68 B	40	5.74	2.15 B	32	6.03	1.71 B	30 S	4.43	4
5	1.66 B	58	8.32	2.80 B	32 S	7.74	2.18 B	31	5.84	5
6	1.66 B	58 S	8.32	2.22 B	31	5.95	1.89 B	31	5.06	6
7	1.65 B	57	8.13	2.01 B	29	5.04	1.78 B	30	4.61	7
8	1.65 B	56	7.98	1.96 B	28	4.96	1.72 B	28	4.31	8
9	1.64 B	55	7.83	1.86 B	28	4.55	1.63 B	30	4.74	9
10	1.65 B	55	7.84	1.75 B	28	4.23	2.35 B	46 S	9.34	10
11	1.71 B	54 S	7.98	1.71 B	26 S	4.14	4.80 B	307 S	127	11
12	1.75 B	53	8.01	1.68 B	28	4.09	9.08 B	310	243	12
13	1.68 B	52	7.55	1.67 B	27	3.90	6.05 B	176	92.0	13
14	1.62 B	50	7.00	1.66 B	27	3.87	7.30 B	507	320	14
15	1.57 B	47	6.36	1.65 B	26	3.71	8.85 B	2 000 S	1 530	15
16	1.56 B	47	6.33	1.64 B	25	3.54	7.70 B	1 540	1 020	16
17	1.60 B	47	6.50	1.64 B	27	3.83	6.15 B	1 030	547	17
18	1.82 B	49	7.71	1.69 B	28	4.23	10.0 B	1 150	994	18
19	3.80 B	67 S	20.6	1.81 B	35	5.47	25.1 B	2 820 S	6 330	19
20	7.00 B	187 S	113	1.95 B	53 S	8.83	21.0	2 770 S	5 030	20
21	4.45 B	58 S	22.3	2.62 B	56	12.7	10.3	475 S	423	21
22	4.38 B	25	8.48	2.07 B	35 S	6.26	7.77	241 S	162	22
23	3.24 B	32 S	8.98	1.91 B	31	5.12	7.33	257	163	23
24	3.48 B	27	8.81	1.74 B	30	4.51	7.88	370 S	252	24
25	2.06 B	27	4.81	1.66 B	30	4.30	6.84	270 S	180	25
26	1.86 B	26	4.18	1.56 B	30	4.04	8.57	416 S	308	26
27	1.75 B	30	4.54	1.51 B	29	3.78	9.83	369 S	305	27
28	1.71 B	33 S	4.88	1.49 B	29	3.73	7.55	226	147	28
29	1.67 B	34	4.91				6.51	175	98.4	29
30	1.64 B	34	4.82				6.46	164 S	91.5	30
31	1.63 B	34	4.78				5.86	125	81.1	31
TOTAL	67.40		335.85	51.75		144.83	208.86		18 454.18	TOTAL

DAY	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	DAY
1	4.63	84	33.6	1.84	33 S	5.65	1.45	87	8.39	1
2	4.10	67 S	23.7	1.91	37	6.11	1.43	86	8.03	2
3	3.53	56	16.5	1.93	57	9.50	1.33	82 S	7.12	3
4	3.20	38	10.5	1.86	57 S	9.16	1.28	83	7.02	4
5	3.16	29	7.92	1.78	66	10.1	1.32	74	8.44	5
6	3.38	46 S	13.4	1.81	75	12.4	1.37	72	8.52	6
7	3.36	42	12.2	1.88	87	10.9	1.39	68	8.28	7
8	3.14	30	8.14	1.74	58	8.43	1.50	80	10.4	8
9	2.93	22	5.57	1.64	40	5.67	1.47	83	8.00	9
10	2.74	15 S	3.55	1.62	25	3.50	1.33	87 S	6.55	10
11	2.65	31 S	7.10	1.60	21	2.90	2.39	864	178	11
12	2.62	31	7.02	1.56	19 S	2.56	3.83	885	272	12
13	2.67	20	4.27	1.58	20	2.75	4.66	1 060	428	13
14	2.37	18	3.73	1.52	18	2.36	3.25	710	189	14
15	2.34	20	4.04	1.67	24	3.46	2.18	310	58.4	15
16	3.36	86	25.1	2.04	37 S	6.52	2.49	586	126	16
17	5.23	158	71.4	2.23	48	9.44	2.76	1 310 S	311	17
18	4.12	76	26.7	1.88	33	5.67	1.83	378	59.8	18
19	3.18	47 S	13.0	6.84	810 S	380	1.67	117	15.9	19
20	2.83	32	7.82	10.8	581 S	542	1.52	76	9.86	20
21	3.86	69 S	23.6	8.27	188	119	1.31	53	6.00	21
22	4.88	92	38.6	5.34	116	53 S	1.37	78	9.23	22
23	3.83	39 S	12.2	4.62	184	80.1	2.79	230 S	55.4	23
24	3.05	34	8.98	4.24	168	80.8	2.81	130	31.6	24
25	2.61	32	7.32	3.30	111 S	31.6	2.37	93	19.0	25
26	2.41	30	6.25	2.57	100	22.2	1.87	83	10.2	26
27	2.25	33	6.22	2.15	88	16.3	1.68	80	7.26	27
28	2.11	32 S	5.83	1.90	78 S	13.0	1.66	43	8.17	28
29	2.05	34	6.02	1.71	74 S	10.9	1.53	46	6.35	29
30	2.11	39	7.11	1.65	70	9.27	1.33	42	4.83	30
31				1.47	68	8.64				31
TOTAL	84.33		427.47	87.13		1 434.48	58.85		1 895.88	TOTAL

B - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

SUSPENDED SEDIMENT FOR 1986

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	1.24	24	2.57	1.44	377	46.9	1.84	32	4.53	1
2	1.31	36	4.07	1.32	351	40.0	1.44	32	3.98	2
3	1.25	31	3.35	1.19	190	19.5	1.55	50	6.70	3
4	1.19	33	3.39	1.14	80 S	6.86	1.85	37	5.27	4
5	1.15	33	3.28	1.16	79	7.92	1.50	24 S	3.83	5
6	1.18	25	2.51	1.20	147	15.2	1.51	18	2.35	6
7	1.09	33	3.11	2.10	632 S	115	1.34	14	1.62	7
8	1.07	28	2.59	2.58	547	122	1.31	12	1.36	8
9	1.07	28	2.59	2.00	273	47.2	1.28	9	0.88	9
10	1.03	36	3.20	1.79	130	20.1	2.60	385	82.2	10
11	1.00	43	3.72	1.54	49	6.52	24.2	1 850 S	3 240	11
12	1.04	42	3.77	1.36	38	4.67	15.6	791	1 070	12
13	1.18	88	8.92	1.22	31	3.27	9.75	363	306	13
14	1.21	50	5.23	1.26	53	5.77	5.64	119	58.0	14
15	1.18	53 S	5.40	8.71	1 010 S	760	4.51	243	94.7	15
16	1.11	46	4.41	17.6	875 S	1 330	7.58	525 S	344	16
17	1.27	82	9.00	5.59	255	124	4.88	104	43.8	17
18	3.56	482	148	3.38	80	23.4	3.45	38	11.3	18
19	6.37	703 S	387	2.38	50	10.3	2.92	38	9.59	19
20	3.28	282	74.2	1.78	39	6.03	5.28	476 S	258	20
21	2.18	85	16.0	1.85	41	5.84	8.93	270	182	21
22	1.87	52	7.50	1.52	31 S	4.07	5.36	102	47.2	22
23	1.42	50	6.13	1.55	80	8.04	14.9	803 S	1 040	23
24	1.25	47	5.08	2.06	92	16.4	9.35	189	153	24
25	1.18	33 S	3.35	1.71	49	7.24	5.93	55	28.2	25
26	1.78	149	23.0	2.00	128	22.1	5.65	148	72.2	26
27	2.24	180	31.0	16.2	1 630 S	2 140	7.43	395	254	27
28	1.55	84	8.93	6.23	158	85.0	5.23	105	47.4	28
29	1.34	42	4.86	3.38	101 S	28.5	8.37	286 S	157	29
30	1.28	38	3.92	2.48	88	14.6	13.8	1 100 S	1 310	30
31	1.32	124	14.1	1.81	44	7.26				31
TOTAL	49.95		801.89	101.44		5 036.49	181.56		8 819.01	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	9.40	316 S	257	3.07	20	3.58	1.32 B	28 S	3.19	1
2	6.98	122	73.6	2.11	25	4.55	1.50 B	28	3.74	2
3	5.82	78	39.7	2.00	19	3.28	3.25 B	93	26.1	3
4	6.51	173	97.3	1.83	15	2.50	4.36 B	122	46.0	4
5	7.88	273	186	1.83	11	1.74	2.97 B	85	21.8	5
6	5.75	100	49.7	1.88	7 S	1.12	1.80 B	82	12.8	6
7	4.77	63	26.0	1.67	7	1.13	1.87 B	70	11.3	7
8	3.83	50	16.5	1.79	7	1.08	1.61 B	53	7.37	8
9	3.23	44 S	12.3	1.80	9	1.40	1.32 B	30	3.42	9
10	2.76	37	8.82	1.71	6	0.89	2.13 B	45 S	8.28	10
11	2.33	26	5.23	1.74	5	0.75	2.08 B	50	8.90	11
12	2.33	21	4.23	1.59 B	7	0.98	1.77 B	45	6.88	12
13	2.32	27	5.41	1.31 B	6	0.85	1.61 B	32	4.45	13
14	4.33	154	58.3	1.19 B	10	1.03	1.51 B	41	5.35	14
15	4.29	75	27.6	1.43 B	17	2.10	2.24 B	97	18.8	15
16	3.50	34	10.3	1.59	13	1.79	2.24	84	16.3	16
17	3.13	19 S	5.14	1.61	10 S	1.39	2.14	70 S	12.9	17
18	2.87	18	4.46	1.59 B	17	2.34	2.52	57	12.4	18
19	2.70	18	3.73	1.33 B	10	1.15	3.01	88 S	17.7	19
20	2.58	20	4.46	1.22 B	11	1.16	2.78	60	14.9	20
21	2.41	15	3.12	1.37 B	14	1.66	2.20 B	39	7.41	21
22	2.22	15	2.88	1.53 B	18	2.38	1.82 B	28	4.31	22
23	2.11	13	2.37	1.81 B	20	3.13	1.81 B	20	3.13	23
24	2.07	8 S	1.81	2.34	34	6.87	2.36 B	18	3.70	24
25	2.01	7	1.22	2.99	36 S	9.82	3.41 B	62	18.3	25
26	1.98	9	1.52	2.87	31	7.89	4.25 B	118	43.3	26
27	1.87	23	3.81	3.79	77	25.2	3.53 B	78	23.8	27
28	2.38	40	8.23	3.22	63	14.7	3.04	53	13.9	28
29	2.18	17	3.22	2.69	38	9.05	2.70	46	10.5	29
30	2.07	17	3.04	2.28	31	8.11	2.58	42 S	9.36	30
31	2.10	16 S	2.90				2.48	38	8.36	31
TOTAL	110.69		928.00	58.46		121.25	74.32		408.27	TOTAL

B - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

ONTARIO

HUMBER RIVER AT ELDER MILLS - STATION NO. 02HC025

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 02	10:08	0.1	1.88 W	17.6	DH48	23	378														
JAN 06	12:15	0.5	1.85	17.6	DH48	58															
JAN 11	16:32	0.1	1.71 W	17.6	DH48	54															
JAN 19	12:27	0.1	2.80 W	17.6	DH48	47															
JAN 20	08:00	0.1	7.00 W	17.6	DH48	236	386														
JAN 21	11:15	0.1	4.65 W	17.6	DH48	49															
JAN 23	14:45	0.5	3.24 W	17.6	DH48	30															
JAN 28	11:52	0.1	1.71 W	17.6	DH48	32															
FEB 02	10:52	0.1	1.74 W	17.6	DH48	37															
FEB 05	16:20	0.1	2.80 W	17.6	DH48	32															
FEB 11	16:12	0.1	1.71 W	17.6	DH48	28															
FEB 20	11:40	2.0	1.88	17.6	DH48	55															
FEB 22	09:46	0.1	2.07 W	17.6	DH48	34	428														
MAR 04	11:31	0.1	1.71 W	17.6	DH48	30															
MAR 10	11:13	0.1	2.35 W	17.6	DH48	29															
MAR 11	11:47	0.1	4.80 W	17.6	DH59	305															
MAR 16	15:27	0.1	8.85 W	17.6	DH59	1800															
MAR 19	09:00	0.5	25.1 W	17.6	DH59	2050	391														
MAR 19	10:18	0.5	25.1 W	17.6	D74	3380															
MAR 19	13:40	1.0	25.1 W	5.0 X	DH48	5870	302	8	12	22	31	50	80	94	99	100			20	68	12
MAR 19	16:00	0.5	51.8	5.0 X	DH48	2840	223	6	9	23	36	59	78	90	100				22	69	9
MAR 20	11:30	0.1	18.4	17.6	D74	3530	236														
MAR 21	16:55	0.1	10.5	17.6	D74	424															
MAR 22	16:42	1.5	8.78	17.6	D74	269															
MAR 24	18:05	2.0	8.43	17.6	D74	424	275														
MAR 25	17:22	5.0	6.36	17.6	D74	203															
MAR 26	13:20	4.0	8.51	17.6	D74	400															
MAR 27	14:45	5.0	9.80	17.6	D74	328	383														
MAR 30	08:45	8.0	8.50	17.6	D74	170															
APR 02	13:50	11.0	4.06	17.6	DH48	68															
APR 08	16:36	8.0	3.48	17.6	DH48	50															
APR 10	13:50	5.5	2.71	17.6	DH48	13	377														
APR 11	14:10	5.0	2.71	17.6	DH48	38															
APR 19	14:37	14.0	3.20	17.6	DH48	45															
APR 21	15:30	12.0	4.84	17.6	DH48	79															
APR 23	11:30	7.0	3.44	17.6	DH48	37															
APR 28	14:32	20.0	2.15	17.6	DH48	32	302														
MAY 01	12:40	12.0	2.04	17.6	DH48	33															
MAY 04	18:57	12.0	1.87	17.6	DH48	56															
MAY 12	13:35	19.0	1.50	17.6	DH48	19															
MAY 16	14:42	19.0	2.11	17.6	DH48	33															
MAY 19	10:57	18.0	7.12	17.6	DH59	578	383														
MAY 20	15:25	14.0	11.1	17.6	DH59	499	419														
MAY 20	19:25	12.0	10.4	17.6	DH59	308															
MAY 25	15:17	20.0	2.11	17.6	DH48	108															
MAY 28	12:45	22.0	1.93	17.6	DH48	80															
MAY 29	11:20	23.0	1.72	17.6	DH48	74															
JUN 03	12:35	18.0	1.36	17.6	DH48	60															
JUN 10	19:30	20.0	1.42	17.6	DH48	55															
JUN 17	08:27	17.0	3.65	17.6	DH48	1440	327														
JUN 23	06:15	21.5	2.88	17.6	DH48	229	357														
JUL 15	13:10	23.0	1.14	17.6	DH48	48															
JUL 19	14:00	23.5	5.47	17.6	DH48	653	356														
JUL 25	13:15	26.0	1.15	17.6	DH48	31															
AUG 04	07:40	18.5	1.14	17.6	DH48	87															
AUG 07	18:47	20.0	2.17	17.6	DH48	554	344														
AUG 15	16:40	21.5	3.97	17.6	DH48	589															
AUG 18	12:15	20.0	14.8	17.6	DH59	648															
AUG 22	11:45	20.5	1.45	17.6	DH48	26															
AUG 27	08:00	18.0	31.6	17.6	DH59	2870	257	30	40	62	72	92	95	98	100				5	55	40
AUG 27	12:00	17.5	14.7	17.6	DH59	878	323														
AUG 28	13:50	18.0	3.27	17.6	DH48	103															
SEP 05	07:30	17.0	1.69	17.6	DH48	41															
SEP 05	12:50	18.0	1.45	17.6	DH48	18															
SEP 11	06:55	16.0	39.4	17.6	DH59	2470	241	30	35	56	67	83	92	97	100				8	57	35
SEP 16	07:40	9.5	8.67	17.6	DH59	582	219														
SEP 20	13:45	14.0	9.38	17.6	DH59	878	304														
SEP 23	09:00	13.0	22.2	17.6	DH59	1210	340														
SEP 29	17:20	15.5	8.84	17.6	DH59	168	373														
SEP 30	08:20	16.0	17.8	17.6	DH59	1580	309														
OCT 01	16:30	15.0	8.34	17.6	DH59	175	336														
OCT 08	09:30	10.0	3.25	17.6	DH48	44															
OCT 17	12:10	8.0	3.14	17.6	DH48	19															
OCT 24	13:38	10.0	2.08	17.6	DH48	8															
OCT 31	10:45	8.5	2.08	17.6	DH48	15															
NOV 06	12:38	8.0	1.80	17.6	DH48	7	449														
NOV 17	10:20	1.5	1.61	17.6	DH48	8															
NOV 25	12:15	2.0	3.02	17.6	DH48	39															
NOV 25	15:15	2.0	3.02	17.6	DH48	30															
DEC 01	12:50	0.1	1.32 W	17.6	DH48	28															
DEC 10	11:55	0.1	2.13 W	17.6	DH48	45															
DEC 17	15:20	0.1	2.11	17.6	DH48	70															
DEC 19	08:00	0.1	3.08	17.6	DH48	88	424														
DEC 30	11:20	1.0	4.88	17.6	DH48	43															

NOTE : SINGLE VERTICAL LOCATED AT 17.6 METRES FOR 1986

DISCHARGE SYMBOL(S): W - DAILY MEAN; ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

NUMBER RIVER AT ELDER MILLS - STATION NO. 02HC025

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY JAN-DEC MEAN LOAD (TONNES)	SUMMARY JAN-DEC HISTORICAL MEAN LOAD (TONNES)	SUMMARY JAN-DEC STANDARD ERROR OF MEAN %
1966	--CCCCCCCCCC	MANUAL	470 MAR 01	7 MAY 12	288 MAR 01	4 290	---	---	---
1967	CCCCCCCCCCCC	MANUAL	1 950 JUL 09	13 OCT 05	5 000 APR 03	23 800	65.3	65.3	---
1968	CCCCCCCCCCCC	MANUAL	1 330 AUG 23	8 OCT 23	3 430 MAR 19	22 100	60.4	62.9	3.9
1969	CCCCCCCCCCCC	MANUAL	2 260 APR 18	10 JUN 13	4 280 APR 18	24 600	67.3	64.3	3.2
1970	CCCCCCCCCCCC	MANUAL	2 430 MAY 26	8 SEP 23	1 230 APR 09	8 720	23.9	54.2	18.8
1971	CCCCCCCCCCCC	MANUAL	1 800 APR 02	10 NOV 10	2 440 APR 02	12 500	34.2	50.2	17.7
1972	CCCCCCCCCCCC	MANUAL	1 920 APR 11	6 SEP 25	4 420 APR 14	23 800	64.9	52.7	14.5
1973	CCCCCCCCCCCC	MANUAL	2 900 MAR 08	7 OCT 16	4 030 MAR 08	25 100	71.5	55.4	12.6
1974	CCCCCCCCCCCC	MANUAL	2 100 MAY 17	8 OCT 18	5 950 MAR 05	32 100	87.9	59.4	12.3
1975	CCCCCCCCCCCC	MANUAL	3 710 APR 19	8 OCT 10	12 000 APR 18 *	34 100	93.4	63.2	11.8
1976	CCCCCCCCCCCC	MANUAL	3 610 MAR 20	8 OCT 19	7 950 MAR 20	37 400	102	67.1	11.5
1977	CCCCCCCCCCCC	MANUAL	2 170 SEP 25	16 MAR 07	3 350 OCT 02	31 000	84.9	68.7	10.4
1978	CCCCCCCCCCCC	MANUAL	3 320 APR 01	10 OCT 23	6 630 APR 01	39 900 *	109	72.1	10.2
1979	CCCCCCCCCCCC	MANUAL	1 860 MAR 14	10 SEP 10	3 510 MAR 05	32 200	88.3	73.3	9.4
1980	CCCCCCCCCCCC	MANUAL	3 260 APR 15	14 MAR 06	6 260 APR 15	26 100	71.2	73.2	8.7
1981	CCCCCCCCCCCC	MANUAL	804 JUL 08	8 APR 23	4 700 FEB 18	20 000	54.7	71.9	8.4
1982	CCCCCCCCCCCC	MANUAL	2 360 MAR 31	8 OCT 15	7 650 MAR 31	35 300	96.7	73.5	8.0
1983	CCCCCCCCCCCC	MANUAL	1 070 MAY 03	11 NOV 15	1 420 FEB 03	14 900	40.8	71.6	8.2
1984	CCCCCCCCCCCC	MANUAL	2 550 DEC 29	1 NOV 02 *	2 260 FEB 14	16 900	46.1	70.1	8.1
1985	CCCCCCCCCCCC	MANUAL	3 000 APR 05	9 SEP 24	3 920 APR 05	28 500	78.1	70.6	7.6
1986	CCCCCCCCCCCC	MANUAL	5 870 MAR 19 *	7 NOV 06	6 330 MAR 18	38 800	106	72.3	7.5

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH

* - EXTREME FOR PERIOD OF RECORD

KEMPTVILLE CREEK NEAR KEMPTVILLE - STATION NO. 02LA006

LOCATION: LAT 44 59 38 N LONG 075 38 48 W
DRAINAGE AREA: 409 km²
TYPE OF FLOW: REGULATED SINCE 1951
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MARCH 1986

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	PERCENT SILT	PERCENT CLAY
MAR 17	12:45	0.5	6.29	4.0	X DH48	4	335														
MAR 24	12:15	0.5	18.5	7.8	D49	4	226														
APR 08	12:10	5.0	16.6	7.8	D49	2	218														
JUN 03	11:30	18.0	4.17	4.0	X DH48	2	395														
JUL 28	11:30	25.0	3.08	7.8	DH48	2															
SEP 22	12:00	14.0	3.74	7.8	DH48	1															
NOV 05	15:00		9.08	7.8	D49	1	153														
NOV 18	11:45	0.5	4.17	7.8	DH48	1															
DEC 04	11:30	0.2	14.8	7.8	D49	1	131														

NOTE . SINGLE VERTICAL LOCATED AT 7.8 METRES FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1986	--PP-PP-P-PP	MANUAL	4 MAR 17 *	1 SEP 22 *	--- ---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

ONTARIO

KETTLE CREEK AT ST. THOMAS - STATION NO. 02GC002

LOCATION: LAT 42 45 40 N LONG 081 12 52 W
DRAINAGE AREA: 329 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER		INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 11	14:45	1.0	97.0	20.0	DH59		318	299														
MAR 18	16:00	1.0	107	20.0	DH59		921	279														
MAY 07	16:00	11.0	0.851	4.0	DH48	X	28	459														
JUN 05	13:00	18.0	0.523	4.0	DH48	X	60	494														
JUL 15	14:00	22.0	0.786	4.0	DH48	X	86	470														
AUG 12	14:00	19.0	0.251	4.0	DH48	X	42	463														
SEP 09	13:00	15.0	0.132	4.0	DH48	X	60	484														
OCT 10	10:30	11.0	2.13	4.0	DH48	X	46	613														
NOV 08	11:30	6.0	0.712	4.0	DH48	X	6															

NOTE : SINGLE VERTICAL LOCATED AT 20 METRES FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---PPPPP-P--	MANUAL	136	AUG 29		28	MAY 07		---	---	---	---	---	---
1986	--P-PPPPPPP-	MANUAL	921	MAR 19	*	6	NOV 06	*	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

LITTLE OTTER CREEK NEAR STRAFFORDVILLE - STATION NO. 02GC015

LOCATION: LAT 42 45 23 N LONG 080 48 26 W
DRAINAGE AREA: 104 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER		INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 12	13:45	1.5	5.81	3.0	DH59		1470	287														
MAR 14	13:50	2.0	6.36	3.0	DH59		891	269														
MAR 19	11:15	2.0	9.09	3.0	DH59		2080	263														
APR 17	11:00	8.0	3.13	3.0	DH48		378	363														
MAY 29	09:00	20.0	1.33	3.0	DH48		161	410														
JUL 09	11:00	23.0	0.949	3.0	DH48		216	511														
AUG 18	09:35	24.0	0.733	3.0	DH48		98	404														
SEP 24	08:35	18.0	0.885	3.0	DH48		157	441														

NOTE : SINGLE VERTICAL LOCATED AT 3.0 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	-PPPPP-P-PPP	MANUAL	828	NOV 06		32	MAY 09	*	---	---	---	---	---	---
1986	--PPP-PPP---	MANUAL	2 080	MAR 19	*	98	AUG 18		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

LYNDE CREEK NEAR WHITBY - STATION NO. 02HC018

LOCATION: LAT 43 52 32 N LONG 078 57 43 W
DRAINAGE AREA: 106 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MARCH 1986

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	PERCENT SILT	PERCENT CLAY
MAR 19	10:30	0.5	20.2	3.0	DH59	2280	401														
MAY 13	09:00	12.0	0.278	3.0	DH48	10	335														
SEP 24	10:10	13.0	2.72	3.0	DH59	84															

NOTE : SINGLE VERTICAL LOCATED AT 3.0 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1986	--P-P---P---	MANUAL	2 280	MAR 19 *	10	MAY 13 *	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

ONTARIO

MCGREGOR CREEK NEAR CHATHAM - STATION NO. 02GE007

SUSPENDED SEDIMENT FOR 1986

LOCATION LAT 42 23 00 N LONG 82 05 39 W
DRAINAGE AREA 202 km²
TYPE OF FLOW NATURAL
TYPE OF GAUGE RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 15 000 TONNES FOR THE PERIOD MAR 01 TO MAY 31

REMARKS

DAY	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	DAY
1	0.708 E	113	5.91	0.855	57 S	4.26	0.605	109	5.70	1
2	0.670 E	107	6.19	0.946	83 S	5.15	0.512	76 S	3.36	2
3	1.26 E	212	23.1	0.815	76 S	5.49	0.442	61	2.33	3
4	4.37 E	426	161	0.899	103 S	8.22	0.406	86	2.32	4
5	10.3 E	376 S	334	0.705	107 S	6.52	0.401	88 S	3.06	5
6	8.11 E	257	180	1.71	189 S	25.0	0.469	131	5.31	6
7	3.22 E	161	50.4	1.26	117 S	12.7	0.597	116 S	5.98	7
8	2.15 E	145	26.8	0.571	69	3.79	0.435	106	3.97	8
9	1.24 E	112	13.0	0.818	86 S	3.86	0.359	114 S	3.54	9
10	30.0 E	988	2 960	0.812	59	4.14	0.337	98	2.85	10
11	37.6	652 S	2 120	0.877	80 S	5.08	0.326	87 S	2.44	11
12	11.4	297 S	293	0.825	86	5.13	0.313	79	2.14	12
13	21.1	808 S	1 650	0.671	78	4.52	0.291	70	1.76	13
14	19.1	508 S	840	0.586	78 S	3.95	0.303	72	1.88	14
15	13.4	255 S	295	0.719	107	8.65	0.328	83	2.38	15
16	8.01	131 S	90.7	0.840	102 S	7.40	0.455	154	6.06	16
17	5.09	132 S	58.1	1.18	130	13.2	0.385	110	3.65	17
18	4.96	261 S	112	0.800	71 S	5.53	0.337	94	2.74	18
19	27.4	1 450 S	3 480	0.710	50	3.07	0.550	140	6.65	19
20	9.98	355	306	1.30	336	37.7	2.83	283	64.3	20
21	3.22	430	120	18.1	803 S	1 330	3.75	177 S	57.3	21
22	2.30	140	27.8	7.37	265	169	1.58	182	22.1	22
23	2.20	98 S	18.8	2.79	117 S	28.2	1.41	180 S	21.9	23
24	2.33	98 S	19.7	1.86	124	19.9	1.11	184	15.7	24
25	2.17	80 S	15.0	1.43	111 S	13.7	0.801	180	11.1	25
26	2.44	100 S	21.1	1.12	95	9.18	0.824	181 S	9.78	26
27	2.83	79 S	18.0	0.896	89	6.89	0.558	271	13.1	27
28	1.67	80 S	9.69	0.754	83 S	6.08	0.586	281 S	12.7	28
29	1.54	87 S	11.6	0.667	89	5.13	0.454	223	9.14	29
30	1.24	76 S	7.93	0.599	103 S	5.33	0.402	206 S	7.15	30
31	0.966	85 S	5.44				0.383	181	5.68	31
TOTAL	243.676		12 891.36	54.800		1 786.95	22.044		318.01	TOTAL

MCGREGOR CREEK NEAR CHATHAM - STATION NO. 02GE007

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 05	11:30	1.0	8.62	MID	DH48	220															
MAR 11	11:20		34.3	MID	DH59	642	278														
MAR 12	11:35		11.2	MID	DH59	273															
MAR 13	11:00		25.6	MID	DH59	1220	329	46	59	74	78	94	95	99	100				5	36	59
MAR 14	11:15		17.2	MID	DH59	480															
MAR 15	10:45		13.7	MID	DH59	218	331														
MAR 16	10:30		8.25	MID	DH59	131															
MAR 17	10:45		4.72	MID	DH59	101															
MAR 18	10:20		4.88	MID	DH59	135															
MAR 19	10:40		38.4	MID	DH59	1930	427	55	63	74	79	89	94	99	100				6	31	63
MAR 19	14:30	2.0	33.0	MID	DH59	1280	370														
MAR 23	11:00		2.07	MID	DH59	87															
MAR 24	11:00		2.38	MID	DH59	97															
MAR 25	10:12		2.15	MID	DH59	76															
MAR 26	10:43		2.41	MID	DH59	88	514														
MAR 27	11:45		2.80	MID	DH59	73															
MAR 28	12:10		1.76	MID	DH59	95															
MAR 29	12:10		1.53	MID	DH59	87	469														
MAR 30	14:00		1.20	MID	DH59	72															
MAR 31	10:45		0.964	MID	DH59	68															
APR 01	11:40		0.839	MID	DH59	60															
APR 02	10:30		0.988	MID	DH59	68															
APR 03	14:50		0.954	MID	DH59	60															
APR 03	16:45		0.812	MID	DH59	75															
APR 04	11:15		0.685	MID	DH59	112															
APR 05	11:44		0.646	MID	DH59	90	584														
APR 06	15:30		1.86	MID	DH59	154	637														
APR 07	09:40		1.28	MID	DH59	130															
APR 09	11:38		0.812	MID	DH59	66															
APR 11	10:45		0.867	MID	DH59	78															
APR 14	09:30		0.696	MID	DH59	77															
APR 18	11:30		0.783	MID	DH59	87	618														
APR 18	09:30		0.931	MID	DH59	72															
APR 21	09:20		21.5	MID	DH59	797	449														
APR 22	08:15		2.84	MID	DH59	110															
APR 25	08:30		1.44	MID	DH59	116															
APR 28	11:00		0.753	MID	DH59	85															
APR 30	08:30		0.571	MID	DH59	89															
MAY 02	10:20		0.494	MID	DH59	74	538														
MAY 05	09:46		0.383	MID	DH59	67															
MAY 07	12:30		0.484	MID	DH59	104															
MAY 09	09:30		0.353	MID	DH59	117															
MAY 11	10:00		0.323	MID	DH59	85	501														
MAY 21	15:40	12.0	2.86	MID	DH59	131	749														
MAY 23	08:12		1.44	MID	DH58	176															
MAY 26	08:00		0.633	MID	DH59	158															
MAY 28	09:30		0.581	MID	DH59	266	583														
MAY 30	08:00		0.401	MID	DH59	209															
JUN 25	10:45	17.0	0.389	MID	DH48	68	554														
JUL 09	08:50	21.0	4.91	MID	DH48	433	561														
SEP 08	10:25	17.0	0.642	MID	DH48	108	595														
OCT 03	10:55	15.0	0.645	MID	DH48	462	675														
OCT 22	09:20	11.0	0.763	MID	DH48	93	604														

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1988	--EECPP-PP--	MANUAL	1 930	MAR 19 *	50	APR 01 *	3 480	MAR 19 *	15 000 *	---	---	---

MANUAL - MANUAL SAMPLING

E - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

MOOSE RIVER ABOVE MOOSE RIVER - STATION NO. 04LE004

LOCATION: LAT 50 44 38 N LONG 081 37 30 W
DRAINAGE AREA: 50 100 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: MANUAL

REMARKS: REPLACES 04LE002 'MOOSE RIVER AT MOOSE RIVER' EFFECTIVE JAN 01 1983

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAY 05	10:30		3410	320	049	60	212														
JUL 11	12:35		459	170 X	049	42	331														

NOTE : SINGLE VERTICAL LOCATED AT 320 METRES FOR 1988

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

ONTARIO

MOOSE RIVER ABOVE MOOSE RIVER - STATION NO. 04LG004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY: MEAN LOAD (TONNES)	SUMMARY: HISTORICAL MEAN LOAD (TONNES)	SUMMARY: HISTORICAL STANDARD ERROR OF MEAN %
1975	------P-----		30	JUL 05	7	AUG 23 *	---	---	---	---	---	---
1984	----P--P-P-P--	MANUAL	78	MAY 10	45	AUG 17	---	---	---	---	---	---
1985	--------P----	MANUAL	63	AUG 17	63	AUG 17	---	---	---	---	---	---
1986	----P-P-----	MANUAL	80	MAY 05 *	42	JUL 11	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

NANTICOKE CREEK AT NANTICOKE - STATION NO. 02EC022

LOCATION: LAT 42 49 36 N LONG 080 04 36 W
DRAINAGE AREA: 181 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.063	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 12	10:20	1.0	18.9	13.0	DH59	59	177														
MAR 14	10:10	1.0	18.5	13.0	DH59	82	247														
APR 15	10:10	6.0	1.72	13.0	DH48	56	262														
MAY 28	08:45	18.0	2.18	13.0	DH59	140	411														
JUL 03	08:45	21.0	0.480	13.0	DH48	134	433														
SEP 25	08:45	18.0	0.458	13.0	DH48	132	483														
NOV 04	12:40	6.0	1.61	13.0	DH48	112	421														

NOTE: SINGLE VERTICAL LOCATED AT 13 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY: MEAN LOAD (TONNES)	SUMMARY: HISTORICAL MEAN LOAD (TONNES)	SUMMARY: HISTORICAL STANDARD ERROR OF MEAN %
1984	-----P--P----	MANUAL	312	SEP 11	296	JUN 19	---	---	---	---	---	---
1985	-PPPPP-P-PPP	MANUAL	529	APR 01 *	10	DEC 10 *	---	---	---	---	---	---
1986	--PPP-P-P-P-	MANUAL	169	MAY 28	12	NOV 04	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

NAPANEE RIVER AT CAMDEN EAST - STATION NO. 02HK007

LOCATION: LAT 44 20 03 N LONG 076 50 15 W
DRAINAGE AREA: 684 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.063	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 21	13:30	0.1	18.4	12.0	DH59	8	247														
FEB 19	11:30	0.1	7.33	12.0	DH48	3	223														
MAR 18	12:00	0.1	12.8	12.0	DH59	6	243														
MAR 27	09:45	1.0	33.0	12.0	DH59	7	198														
APR 16	10:50	8.0	13.4	12.0	DH59	4	201														
JUN 25	10:20	22.0	5.28	12.0	DH48	2															
JUL 30	09:00	25.0	1.91	12.0	DH48	3															
SEP 17	10:00	11.0	8.39	12.0	DH59	1	158														
OCT 09	10:45	10.0	15.2	12.0	DH59	1	204														
NOV 06	13:25	5.0	12.6	12.0	DH59	2															
DEC 17	10:50	0.5	11.4	12.0	DH48	1	187														

NOTE: SINGLE VERTICAL LOCATED AT 10 METRES FOR 1986

NAPANEE RIVER AT CAMDEN EAST - STATION NO. 02HM007

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLES	CONCENTRATION MAXIMUM (mg/L)		CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1985	----PP-PP-P-	MANUAL	6	NOV 20	9	JUN 25 *	---	---	---	---	---	---
1986	PPPP-PP-PPPP	MANUAL	7	MAR 27 *	1	SEP 17	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

NITH RIVER NEAR CANNING - STATION NO. 02GA010

LOCATION: LAT 43 11 28 N LONG 080 27 17 W
DRAINAGE AREA: 1 030 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING OF VERTICAL SAMPLED (m)	TYPE OF CONCENT.	INSTANT. DISSOLVED CONCENT. (mg/L)	SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 20	10:00	0.1	139	20.0		074	100	385													
APR 10	15:30	9.0	11.4	10.0	8	0048	12	473													
JUN 04	08:00	18.0	4.89	10.0	8	0048	14	597													
AUG 20	09:30	22.0	04.0	20.0		0058	100														
SEP 13	08:20	18.0	268	20.0		040	268														
SEP 10	10:00	18.0	103	20.0		048	88	420													
OCT 01	14:10	17.0	288	20.0		0050	270	347													

NOTE : SINGLE VERTICAL LOCATED AT 20 METRES FOR 1986

VERTICAL SYMBOL(S): 8 - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLES	CONCENTRATION MAXIMUM (mg/L)		CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1975	---P---------	MANUAL	2	930	APR 20 *	2	930 APR 20	---	---	---	---	---	---
1985	--8-P-P---P-	MANUAL	185	MAR 30		22	MAY 13	---	---	---	---	---	---
1986	--PP-P-PPP--	MANUAL	370	OCT 01		13	APR 10 *	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

NORTH THAMES RIVER NEAR THORNDALE - STATION NO. 02GD015

LOCATION: LAT 43 03 57 N LONG 081 11 30 W
DRAINAGE AREA: 1 340 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING OF VERTICAL SAMPLED (m)	TYPE OF CONCENT.	INSTANT. DISSOLVED CONCENT. (mg/L)	SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 14	14:00	1.0	109	17.0		0050	31	353													
MAY 23	14:30	13.0	10.7	17.0		0050	50	488													
JUN 11	11:30	20.0	3.72	17.0		0048	13	382													
JUL 16	11:30	23.0	3.07	17.0		0048	10	345													
AUG 14	11:30	19.0	2.82	17.0		0048	10	385													
SEP 10	15:15	15.0	4.43	17.0		0048	9	433													
OCT 23	11:00	10.0	10.4	17.0		0050	9	488													
NOV 13	09:30	5.0	7.00	17.0		0048	8														

NOTE : SINGLE VERTICAL LOCATED AT 17 METRES FOR 1986

ONTARIO

NORTH THAMES RIVER NEAR THORNDALE - STATION NO. 02GD015

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1985	---PPPPP-P--	MANUAL	85 AUG 30	*	8 MAY 08		---	---	---	---	---	---
1986	--P-PPPPPPP-	MANUAL	56 MAY 23		5 OCT 23	*	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

MOTTAWASAGA RIVER NEAR BAXTER - STATION NO. 02ED003

SUSPENDED SEDIMENT FOR 1985

LOCATION LAT 44 14 59 N LONG 79 49 20 W
DRAINAGE AREA 1 160 km²
TYPE OF FLOW NATURAL
TYPE OF GAUGE RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 42 300 TONNES FOR THE PERIOD MAR 01 TO NOV 30

REMARKS

DAY	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	DAY
1	4.50 B	20	7.78	20.4	113 S	199	6.38	9	6.52	1
2	4.40 B	20	7.60	18.5	88 S	141	6.04	9	6.25	2
3	4.35 B	18	6.77	16.6	68	97.5	7.68	9	5.97	3
4	4.40 B	17	6.46	14.7	56 S	71.1	7.40	8	5.11	4
5	4.45 B	15	5.77	14.0	52	62.8	7.20	9	5.80	5
6	4.45 B	15	5.77	14.7	64	81.3	7.12	9	5.54	6
7	4.30 B	15	5.57	15.0	72 S	93.3	7.46	13	8.38	7
8	4.15 B	15	5.38	15.6	76	101	6.87	9	5.34	8
9	4.15 B	23	8.31	15.5	63	84.4	6.58	9	5.12	9
10	4.30 B	30	11.1	14.6	41	51.7	6.47	9	5.03	10
11	17.0 B	67	98.4	14.3	32	39.5	6.30	11	5.99	11
12	42.0 B	80	327	14.7	33 S	41.8	6.04	9	4.70	12
13	37.0 B	67	214	13.4	32	37.0	5.74	8 S	3.97	13
14	30.0 B	73	248	12.0	32 S	33.2	5.59	8	3.88	14
15	83.0 B	100	544	11.3	33	32.2	5.83	11 S	5.54	15
16	61.0 B	20	105	15.2	104	139	6.25	15	8.10	16
17	56.5 B	60 S	303	23.6	208 S	426	6.82	21	14.4	17
18	67.0 B	85	550	18.8	121	194	8.82	19 S	10.8	18
19	88.7 B	500	3 830	14.4	84	75.9	12.3	84	89.5	19
20	88.3	440	3 360	12.4	35	37.5	19.8	108	185	20
21	63.7	328	1 810	16.5	87 S	138	21.3	141 S	258	21
22	50.8	142	621	20.0	84	145	16.8	104	152	22
23	44.2	75	286	15.3	50	66.1	14.5	102	128	23
24	41.8	71	255	12.8	28	32.3	14.7	114	145	24
25	38.7	84	311	11.6	20	20.0	13.8	100 S	111	25
26	43.3	265 S	991	10.5	15 S	13.8	10.3	85	75.8	26
27	51.1	346 S	1 530	9.71	12	10.1	8.88	73	54.7	27
28	37.8	205 S	669	9.16	11 S	8.70	7.71	85	53.3	28
29	28.9	142	369	8.31	9	6.45	8.83	58	34.2	29
30	25.8	144 S	358	8.50	9 S	6.61	8.04	51	26.4	30
31	25.8	121	270				5.66	46 S	22.5	31
TOTAL	1 059.05		17 127.82	432.17		2 491.97	278.51		1 419.82	TOTAL

DAY	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	JUL DAILY DISCHARGE (m³/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m³/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	DAY
1	5.80	43	20.8	4.13	27	9.83	4.34	60 S	22.5	1
2	5.50	42	20.0	4.08	26	9.12	4.26	57	24.5	2
3	5.04	35	15.2	4.02	28	9.03	3.83	66	21.8	3
4	4.85	30	12.6	3.76 E	22	7.15	3.62	68	20.3	4
5	4.84	30	12.5	3.84 E	30	8.28	3.17	66 S	18.1	5
6	4.94	28	12.0	3.54 E	21	6.62	3.04	52	13.7	6
7	4.74	21	8.60	3.28 E	18	5.36	3.05	40 S	10.6	7
8	4.84	17	7.11	2.83 E	20	4.80	4.13	63	22.5	8
9	4.78	13 S	5.37	2.88 E	21	4.85	5.60	77	37.3	9
10	4.31	16	5.96	2.71 E	20 S	4.56	5.26	64	26.9	10
11	5.55	86	80.9	3.43 E	18	3.36	4.24	60 S	14.7	11
12	13.2	119 S	136	3.33 E	17	3.42	3.76	37	12.0	12
13	17.6	181	280	2.76 E	30	7.15	3.45	37	11.0	13
14	14.0	128	155	3.24 E	34	9.52	3.26	38 S	10.1	14
15	9.72	101	84.8	2.88 A	21 S	4.88	4.10	142	50.3	15
16	7.84	89 S	81.1	2.34	14	2.83	11.7	411 S	415	16
17	7.71	85	56.6	2.66	18	4.14	8.87	188	144	17
18	5.81	71	42.4	4.12	21 S	7.48	6.01	70	36.3	18
19	5.10	66	29.5	8.00	101	78.5	4.73	35 S	14.3	19
20	5.73	46 S	22.8	7.84	75	50.8	4.14	23	8.23	20
21	5.29	38	17.4	5.35	48	22.2	4.36	63	16.3	21
22	5.14	38	17.3	4.08	34	12.0	4.44	61 S	15.7	22
23	5.38	58	31.8	3.42	27	7.86	4.18	61	14.7	23
24	7.10	61	37.4	2.97	26	6.87	5.19	83	33.7	24
25	7.02	51	30.8	2.83	31	7.58	5.61	62	30.4	25
26	6.03	40	20.8	4.02	61 S	25.8	4.79	41	17.0	26
27	5.39	35	16.3	6.16	72	36.3	13.6	387	455	27
28	5.64	40	19.1	4.97	62 S	26.6	14.6	277	349	28
29	5.24	33	14.9	4.44	58	21.5	8.48	117	85.6	29
30	4.68	29	11.7	4.28	53 S	19.5	7.05	53	36.9	30
31				4.26	54	19.9	5.69	32	15.7	31
TOTAL	305.69		1 396.94	121.75		447.70	174.37		2 002.83	TOTAL

A - MANUAL GAUGE B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

ONT./210

MOYTAMASACA RIVER NEAR BAXTER - STATION NO. 02ED002

SUSPENDED SEDIMENT FOR 1986

DAY	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DAY
1	4.93	19 S	8.08	39.4	288 S	980	8.82	10	7.62	1
2	4.53	17	6.65	27.5	139 S	336	9.15	19 S	15.0	2
3	4.24	15	5.46	21.1	84	153	9.47	20	16.4	3
4	4.15	15	5.75	22.6	129	252	9.14	13	10.3	4
5	4.67	24	9.66	32.8	206 S	584	8.89	11	8.26	5
6	4.73	15	6.84	27.4	125	296	8.49	7	5.13	6
7	4.29	8	2.97	23.6	61 S	157	8.53	6 S	4.42	7
8	4.04	4	2.79	17.6	55	83 E	8.48	0	0	8
9	3.91	8 S	2.70	15.0	41	53 I	8.54	3	2.21	9
10	4.01	48 S	16.8	13.0	33	35.9	8.33	4	2.88	10
11	22.3	601 E	1 180	11.6	25 S	25.1	8.22	2 S	1.42	11
12	49.5	711	3 040	11.0	23	21.9	8.16	3	2.12	12
13	31.7	255 E	898	10.6	28 S	26.1	7.90 E	3	2.05	13
14	17.5	80	121	15.5	112	140	7.35 E	7	4.38	14
15	12.3	82	85.9	21.6	147	277	7.30 E	8	5.05	15
16	17.0	202	297	16.9	70	102	8.38	10	7.15	16
17	16.3	113	159	14.5	40	50.1	8.71	15	11.3	17
18	12.4	55	56.9	13.7	25 S	29.6	8.44	16	13.0	18
19	10.1	28 S	24.4	12.4	20 S	21.4	8.53	11	8.11	19
20	12.3	130	138	11.3	26	25.4	8.20 E	48	34.0	20
21	21.5	218 S	405	10.5	41	37.2	8.15 E	71	50.0	21
22	17.3	79	118	10.1	55 S	48.5	8.15 E	19	13.4	22
23	32.1	507 S	1 410	9.75	38	32.0	9.04	7 S	5.47	23
24	32.0	323	893	9.38	20	16.2	11.2	10	9.68	24
25	22.8	184	303	9.10	11 S	8.65	14.5	35	44.2	25
26	35.2	364 S	1 110	9.02	11	8.57	14.0	15	18.1	26
27	41.9	312	1 130	9.08	18	14.1	16.2	76 S	106	27
28	31.3	178 S	483	9.88	36	30.9	15.1	152	211	28
29	21.7	107	201	9.81	28	24.0	14.2	128 S	157	29
30	32.8	278	788	8.50	17	14.0	12.5	101	110	30
31				8.07	12	8.40				31
TOTAL	533.41		13 670.83	485.07		3 911.93	393.91		885.85	TOTAL

NOTTAWASAGA RIVER NEAR BAXTER - STATION NO. 02ED003

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP (°C)	INSTANT DISCHARGE (m^3/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	PERCENT SILT	PERCENT CLAY
MAR 26	16 30	0.5	46.8	15.0	DH59	316	339														
MAR 27	09 35	1.0	53.0	15.0	DH59	367															
MAR 28	10 40	0.1	37.8	15.0	DH59	206															
MAR 30	15 20	6.5	29.9	15.0	DH59	148	438														
APR 01	17 00	6.5	19.6	15.0	DH59	116															
APR 02	17 20	7.0	18.2	15.0	DH59	81															
APR 04	16 10	5.0	14.7	15.0	DH59	54	811														
APR 07	16 00	6.0	15.0	15.0	DH59	70															
APR 12	10 30	0.5	14.8	15.0	DH59	34	470														
APR 14	17 00	6.0	11.9	15.0	DH59	31															
APR 17	17 30	5.5	24.5	15.0	DH59	182															
APR 21	17 00	5.5	18.7	15.0	DH59	127															
APR 26	14 00	12.0	10.6	15.0	DH59	14															
APR 28	16 00	16.0	9.20	15.0	DH59	11	456														
APR 30	16 00	10.0	8.45	15.0	DH59	9															
MAY 13	16 30	14.0	5.65	15.0	DH59	9															
MAY 15	17 00	14.0	5.12	15.0	DH59	12															
MAY 18	09 45	16.0	6.47	15.0	DH59	16															
MAY 21	18 15	8.5	20.2	15.0	DH59	133	524														
MAY 25	16 15	14.5	12.3	15.0	DH59	97															
MAY 31	10 00	15.5	5.65	15.0	DH59	46															
JUN 09	16 00	17.0	4.68	15.0	DH59	11															
JUN 12	11 10	18.0	12.6	15.0	DH59	109	389														
JUN 16	16 00	16.5	7.69	15.0	DH59	87															
JUN 20	18 00	17.0	2.88	15.0	DH59	44															
JUL 10	08 00	17.0	2.83	15.0	DH59	20															
JUL 15	11 40	17.0	2.68	15.0	DH59	21	408														
JUL 18	17 05		4.15	15.0	DH59	16															
JUL 26	08 20	17.5	4.30	15.0	DH59	43															
JUL 28	07 10	17.0	5.12	15.0	DH59	65															
JUL 30	07 20	15.5	4.30	15.0	DH59	52															
AUG 01	07 30	16.0	4.28	15.0	DH59	55	350														
AUG 05	08 00	14.0	3.16	15.0	DH59	89															
AUG 07	12 30	17.0	3.07	15.0	DH59	38															
AUG 11	08 00	9.5	4.33	15.0	DH59	39	360														
AUG 14	07 30	12.0	3.23	15.0	DH59	38															
AUG 16	08 15	15.0	12.7	15.0	DH59	474	391														
AUG 19	08 00	15.5	4.75	15.0	DH59	38															
AUG 22	08 20	13.5	4.69	15.0	DH59	44															
SEP 01	09 35	10.5	4.91	15.0	DH59	18															
SEP 09	17 45	12.5	3.84	15.0	DH59	6															
SEP 10	10 30	13.0	3.75	15.0	DH59	21															
SEP 13	14 30	11.0	29.5	15.0	DH59	191	376														
SEP 18	15 15	10.5	9.88	15.0	DH59	25															
SEP 21	13 15	10.5	21.9	15.0	DH59	184															
SEP 23	15 10	10.5	38.2	15.0	DH59	583															
SEP 26	15 20	10.3	42.8	15.0	DH59	490	341														
SEP 28	11 40	10.0	31.5	15.0	DH59	177															
OCT 01	16 00	13.0	39.0	15.0	DH59	253															
OCT 02	17 00	13.0	25.5	15.0	DH59	115															
OCT 05	09 00	7.5	35.0	15.0	DH59	236	396														
OCT 07	16 30	8.5	21.2	15.0	DH59	77															
OCT 11	09 15	5.5	11.7	15.0	DH59	25															
OCT 13	11 00	7.0	10.7	15.0	DH59	25															
OCT 18	10 00	3.5	14.1	15.0	DH59	24															
OCT 19	10 30	3.0	12.5	15.0	DH59	19															
OCT 22	10 45	8.0	10.1	15.0	DH59	58															
OCT 25	14 15	4.0	8.98	15.0	DH59	10															
NOV 02	13 00	3.0	8.83	15.0	DH59	20															
NOV 07	10 20	0.5	8.53	15.0	DH59	5															
NOV 11	17 30	0.5	8.31	15.0	DH59	3	383														
NOV 23	09 50	0.1	8.57	15.0	DH59	7															
NOV 27	10 10	0.1	16.3	15.0	DH59	34															
NOV 28	09 20	0.1	14.3	15.0	DH59	132	228														

NOTE - SINGLE VERTICAL LOCATED AT 15 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY JAN-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1980	--------P---	MANUAL	32	SEP 10	32	SEP 10	---	---	---	---	---	---
1983	CCCCCCCCCCCC	MANUAL	563	APR 04	2	OCT 18	1 810	MAR 20	27 100	74.3	74.3	---
1984	CCCCCCCCCCCC	MANUAL	696	FEB 18	5	OCT 10	3 820	FEB 17	48 400	135	105	28.9
1985	CCCCCCCCCCCC	MANUAL	1 480	APR 19 *	1	OCT 30 *	10 500	MAR 29 *	69 700 *	191	133	25.3
1986	--CCCCCCCC-	MANUAL	583	SEP 23	3	NOV 11	3 830	MAR 19	42 300	---	---	---

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

PARKHILL CREEK ABOVE PARKHILL RESERVOIR - STATION NO. 02FF006

LOCATION: LAT 43 09 49 N LONG 081 37 54 W
DRAINAGE AREA: 110 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)		TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 13	19:00	1.0	11.4	10.0		DH59	253	326														
APR 23	13:45	6.0	2.15	5.0	X	DH59	35	455														
MAY 22	14:00	12.0	1.74	5.0	X	DH59	36	637														
JUN 04	15:00	17.0	0.162	2.0	X	DH48	31	633														
JUL 21	12:00	23.0	0.032	2.0	X	DH48	41	616														
AUG 13	14:45	19.0	0.023	2.0	X	DH48	24	465														
OCT 20	12:00	9.0	0.962	2.0	X	DH48	18	526														
NOV 24	10:30	1.0	0.307	2.0	X	DH48	9	352														

NOTE : SINGLE VERTICAL LOCATED AT 10 METRES FOR 1986

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			SAMPLED CONCENTRATION MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1985	---PPPP-PP--	MANUAL	273	JUL 03	*	37	OCT 29		---	---	---	---	---	---
1986	--PPPPPP-PP-	MANUAL	253	MAR 13		9	NOV 24	*	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

PIC RIVER NEAR MARATHON - STATION NO. 02BB003

LOCATION: LAT 48 46 26 N LONG 086 17 49 W
DRAINAGE AREA: 4 270 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 25	08:37	4.0	184	33.0	D49	464	341														
APR 28	15:58	4.0	302	33.0	D49	870	265														

NOTE : SINGLE VERTICAL LOCATED AT 33 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			SAMPLED CONCENTRATION MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1985	---P--P--P--	MANUAL	2 810	APR 25	*	42	OCT 23	*	---	---	---	---	---	---
1986	---P--------	MANUAL	870	APR 28		464	APR 25		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

PINE RIVER AT LURGAN - STATION NO. 02FD001

LOCATION: LAT 44 05 40 N LONG 081 43 31 W
DRAINAGE AREA: 154 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED IN 1986

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. SOLIDS (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 19	21:15	0.5	39.8	8.0	DH59	439	202														
MAR 20	08:15	0.1	15.0	8.0	DH59	102	219														
APR 03	13:15	8.5	1.69	8.0	DH48	138	316														
MAY 13	08:10	15.5	0.145	8.0	DH48	22	380														
JUN 10	08:35	16.0	0.058	8.0	DH48	29	397														
JUL 30	08:40	20.0	0.190	8.0	DH48	74	421														
OCT 15	15:40	7.0	3.68	8.0	DH48	52	421														

NOTE: SINGLE VERTICAL LOCATED AT 8 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1986	--PPPPP--P--	MANUAL	439	MAR 19 *	22	MAY 13 *	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

REDHILL CREEK AT HAMILTON - STATION NO. 02HA014

LOCATION:
DRAINAGE AREA: 60.9 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. SOLIDS (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 11	10:35	2.0	5.93	4.0	DH48	243	451														
APR 08	09:55		0.486	4.0	DH48	11	828														
MAY 07	18:25	21.0	0.323	4.0	DH48	10	918														
JUL 03	15:15	24.0	0.078	4.0	DH48	10	996														
DEC 19	18:35	1.0	0.920	4.0	DH48	48	845														

NOTE: SINGLE VERTICAL LOCATED AT 4 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1985	-PP-P--PP-PP	MANUAL	2 740	MAR 28 *	0	AUG 14 *	---	---	---	---	---	---
1986	--PPP-P----P	MANUAL	243	MAR 11	10	MAY 07	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

ONTARIO

RUSCOM RIVER NEAR RUSCOM STATION - STATION NO. 02GH002

LOCATION LAT 42 13 54 N LONG 082 37 00 W
DRAINAGE AREA 125 km²
TYPE OF FLOW NATURAL
TYPE OF GAUGE RECORDING

REMARKS PROGRAM STARTED MAR 1986

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 11	15 20	1.0	23.9	3.1	DH59	422	181														
APR 02	16 10	6.0	0.403	3.1	DH59	51	543														
MAY 15	13 00	15.0	0.081	3.1	DH48	86	607														
JUL 30	10 30	22.0	0.027	3.1	DH48	158	567														
OCT 03	09 30	15.0	1.53	3.1	DH48	105	610														
OCT 21	16 35	13.0	0.232	3.1	DH48	38	610														

NOTE SINGLE VERTICAL LOCATED AT 3.1 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1986	--PPP-P--P--	MANUAL	422	MAR 11 *	38	OCT 21 *	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

SALMON RIVER NEAR SHANNONVILLE - STATION NO. 02HM003

LOCATION LAT 44 12 28 N LONG 077 12 35 W
DRAINAGE AREA 891 km²
TYPE OF FLOW REGULATED
TYPE OF GAUGE RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 21	15 45	1.0	34.0	8.0	DH59	11	205														

NOTE : SINGLE VERTICAL LOCATED AT 8 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	-PP-PP--PPPP	MANUAL	29	SEP 11 *	1	DEC 05 *	---	---	---	---	---	---
1986	P----------	MANUAL	11	JAN 21	11	JAN 21	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ONTARIO

SOUTH MAITLAND RIVER AT SUMMERHILL - STATION NO. 02FE009

SUSPENDED SEDIMENT FOR 1986

LOCATION: LAT 43 41 04 N LONG 81 32 38 W
DRAINAGE AREA: 376 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 28 600 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS:

DAY	JAN DAILY DISCHARGE (m³/s)	JAN MEAN CONCENTRATION (mg/L)	JAN DAILY LOAD (t)	FEB DAILY DISCHARGE (m³/s)	FEB MEAN CONCENTRATION (mg/L)	FEB DAILY LOAD (t)	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	DAY
1	2.48 B	8	1.71	7.70 B	24	15.0	1.43 B	20	2.47	1
2	2.44 B	7	1.48	7.00 B	24	14.5	1.40 B	20	2.42	2
3	2.42 B	7	1.46	6.40 B	23	12.7	1.38 B	18	2.15	3
4	2.40 B	7	1.45	5.70 B	22	10.8	1.35 B	17	1.98	4
5	2.38 B	7	1.43	6.40 B	28	15.5	1.32 B	17	1.94	5
6	2.33 B	7	1.41	7.70 B	32	21.3	1.36 B	17	2.00	6
7	2.30 B	7	1.39	5.80 B	26	13.0	1.60 B	17	2.35	7
8	2.28 B	7	1.38	4.40 B	24	9.12	1.95 B	18	3.03	8
9	2.27 B	7	1.37	3.60 B	23	7.15	2.45 B	22	4.88	9
10	2.26 B	7 S	1.37	3.10 B	22	5.89	4.00 B	31	10.7	10
11	2.23 B	5	0.96	2.75 B	23	5.46	15.0 B	68	88.1	11
12	2.20 B	6	1.14	2.34 B	22 S	4.45	26.0 B	139	312	12
13	2.18 B	6	1.13	2.20 B	21	3.99	42.0 B	198	718	13
14	2.16 B	6	1.12	2.05 B	21	3.72	46.0 B	173	688	14
15	2.14 B	6	1.11	1.90 B	21	3.45	43.0 B	129	479	15
16	2.12 B	6	1.10	1.78 B	20	3.08	41.0 B	106	375	16
17	2.35 B	11	2.23	1.66 B	19	2.73	39.0 B	102	344	17
18	13.0 B	32	35.9	1.58 B	19	2.59	35.9 A	119	369	18
19	30.0 B	92	238	1.70 B	21	3.08	91.0 A	277 S	2 180	19
20	35.0 B	75	227	2.10 B	23	4.17	68.1	206	1 210	20
21	32.0 B	50	138	2.60 B	28	6.51	52.8	105	477	21
22	27.0 B	35	81.6	2.45 B	36	7.62	32.4 A	67	188	22
23	21.0 B	29	52.8	2.20 B	40	7.60	28.8 A	67	167	23
24	17.5 B	28	42.3	2.00 B	37	6.38	33.1 A	89	255	24
25	14.5 B	26	32.6	1.80 B	32	4.98	30.9	55	147	25
26	13.2 B	22	25.1	1.65 B	27	3.85	32.3	26	72.6	26
27	12.0 B	21	21.8	1.58 B	22	3.00	29.7	17 S	43.6	27
28	11.0 B	25	23.8	1.52 B	21	2.76	21.0	20	36.3	28
29	10.0 B	26	22.5				15.3 A	23	32.4	29
30	9.20 B	24	19.1				13.3 A	19	21.8	30
31	8.40 B	23	16.7				9.48 A	17	13.9	31
TOTAL	292.73		1 000.24	93.86		205.39	785.12		5 252.40	TOTAL

DAY	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	DAY
1	6.98 A	19	11.5	1.79 A	24	3.71	1.27	34	3.73	1
2	6.22 A	18	9.87	1.61 A	22	3.05	1.12	38	3.68	2
3	4.91 A	18	7.84	1.38 A	20	2.38	0.928	37	2.97	3
4	4.21 A	41 S	14.9	1.26 A	15	1.63	0.808	35	2.44	4
5	3.81 A	58	19.1	1.21 A	14	1.46	0.748	36	2.33	5
6	4.21 A	68	24.0	1.24 A	13	1.39	0.743	40	2.57	6
7	3.89 A	53	18.3	1.22 A	12	1.26	0.726	47	2.95	7
8	3.66 A	44	13.9	1.22 A	12	1.26	0.753	59	3.84	8
9	3.41 A	35	10.3	1.15 A	13	1.29	0.678	51 S	2.99	9
10	3.07 A	33	8.75	1.06 A	13	1.19	0.660	43	2.45	10
11	3.05 A	47	12.4	0.970 A	13	1.08	0.812	44	3.09	11
12	3.64 A	84	20.1	0.900 A	12	0.93	1.60	67	9.26	12
13	3.46 A	54	16.1	0.843 A	11 S	0.80	8.50	115	84.5	13
14	2.93 A	40	10.1	0.702	12	0.73	7.48	75	48.5	14
15	3.25 A	31	8.70	0.686	12	0.71	3.53	50	15.2	15
16	3.98 A	34	11.7	0.759	14	0.92	2.36	35	7.14	16
17	4.86 A	88	28.1	0.828	17	1.22	1.71	27	3.99	17
18	4.03 A	80	20.9	1.07	21	1.94	1.31	25	2.83	18
19	3.23 A	42	11.7	4.92	39	18.8	1.11	22	2.11	19
20	2.90 A	29	7.27	8.39	80 S	58.0	1.00	21	1.81	20
21	6.76 A	52 S	30.4	15.6	101 S	136	0.872	21	1.58	21
22	9.37 A	205	186	12.4	88	73.8	0.743	19	1.22	22
23	6.00 A	113	58.6	9.67	72	60.2	0.800	24	1.86	23
24	4.47 A	87	25.9	10.8	83	77.4	1.07	38	3.33	24
25	3.72 A	54	17.4	6.53	65 S	36.7	0.853	27	2.01	25
26	3.15 A	50	13.6	4.22	55	20.1	0.880	24	1.41	26
27	2.66 A	43	9.88	2.98	49	12.7	0.855	24	1.36	27
28	2.33 A	35	7.05	2.42	43	8.89	1.08	56	5.27	28
29	2.12 A	29	5.31	1.95	40	6.74	1.13	50	4.88	29
30	1.90 A	27	4.43	1.63	37	5.21	0.785	40	2.64	30
31				1.43	34	4.20				31
TOTAL	122.38		824.70	102.848		543.71	48.514		233.74	TOTAL

A - MANUAL GAUGE B - ICE CONDITIONS S - SAMPLE(S) COLLECTED THIS DAY

ONTARIO

SOUTH MAITLAND RIVER AT SUMMERHILL - STATION NO. 02FE009

SUSPENDED SEDIMENT FOR 1986

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	0.819	37	1.98	0.312	15	0.40	2.28	42	8.27	1
2	0.537	35	1.62	0.242	15	0.31	1.56	38	5.12	2
3	0.486	33	1.39	0.213	14	0.26	1.16	38	3.81	3
4	0.450	31	1.21	0.193	14 S	0.23	1.01	48	4.19	4
5	0.421	29	1.05	0.166	14	0.20	3.72	133	42.7	5
6	0.385	28	0.93	0.154	14	0.19	3.16	85	23.2	6
7	0.361	26	0.81	0.170	14	0.21	1.64	39	5.53	7
8	0.337	24	0.70	0.173	13	0.19	1.11	31	2.97	8
9	0.317	22	0.60	0.182	13	0.20	0.846	29	2.12	9
10	0.292	21	0.53	0.852	32	1.80	5.07	136	59.6	10
11	0.283	20	0.51	0.521	19	0.86	78.5	423	2 870	11
12	0.285	21	0.52	0.357	14	0.43	89.4	183	1 410	12
13	0.298	20	0.52	0.288	14	0.35	69.0	92	548	13
14	0.315	19	0.52	0.199	14	0.24	45.5	57	224	14
15	0.310	19	0.51	0.330	22	0.63	31.5	48	131	15
16	0.311	19	0.51	0.522	26	1.17	27.3	47	111	16
17	0.296	18 S	0.49	0.355	17	0.52	21.3	46	84.7	17
18	0.264	19	0.43	0.288	15	0.34	15.5	45	60.3	18
19	0.246	18	0.40	0.195	14	0.24	9.74	43	36.2	19
20	0.289	23	0.57	0.159	14	0.19	7.94	58	39.8	20
21	0.368	28	0.89	0.141	14	0.17	8.90	61	46.9	21
22	0.313	24	0.65	0.121	13	0.14	9.98	55	47.3	22
23	0.251	23	0.50	0.210	18	0.33	33.0	169	482	23
24	0.188	21	0.34	0.281	17	0.41	51.9	196	879	24
25	0.259	32	0.72	0.492	31	1.32	40.2	86	299	25
26	1.22	71	7.48	0.607	23	1.21	27.9	59	142	26
27	3.00	85	22.0	11.0	185	177	19.9	47	80.8	27
28	1.12	36	3.48	32.2	187	520	11.4	44	43.3	28
29	0.643	21 S	1.17	27.8	85	204	36.7	242	767	29
30	0.471	17	0.89	16.4	55	77.9	62.4	232	1 250	30
31	0.385	16	0.50	5.88	46	22.5				31
TOTAL	15.312		54.22	100.581		1 014.04	719.496		9 709.81	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	58.4	187	944	3.08	62	16.5	3.20 B	43	11.9	1
2	50.6	134	586	3.05	65	17.1	3.19 B	44	12.1	2
3	40.0	95	328	2.94	66	16.8	7.93	92	63.0	3
4	35.5	124	380	2.82	66	16.1	11.5	107	106	4
5	34.9	111	336	2.42	65	13.6	7.60	66	43.3	5
6	34.5	120	356	2.26	63	12.3	5.45	48	22.6	6
7	27.1	112	262	2.05	58	10.3	4.70 B	42	17.1	7
8	20.2	102 S	178	1.96	59	9.99	4.10 B	40	14.2	8
9	14.2	92	113	1.98	63	10.8	3.50 B	50	15.1	9
10	9.37	81	65.6	1.78	64	9.84	8.00 B	100	69.1	10
11	7.12	70	43.1	1.63	63	8.87	9.50 B	78	62.4	11
12	6.05	59	30.8	1.56	59	7.85	8.00 B	80	41.5	12
13	5.57	54	26.0	1.35 B	57	6.85	5.80 B	53	26.6	13
14	15.8	185	253	1.30 B	56	6.29	5.00 B	48	20.7	14
15	23.8	267	549	1.39 B	59	7.09	4.60 B	40	15.9	15
16	21.1	155 S	283	1.51	63	8.22	3.88	36	12.1	16
17	15.0	105	136	1.64	65	9.21	3.52	34	10.3	17
18	9.27	86	68.9	1.69	66 S	9.64	5.06	57	24.9	18
19	6.77	76	44.5	1.44 B	65	8.09	8.01	79	54.7	19
20	5.56	71	34.1	0.943 B	60	4.89	7.88	63	41.8	20
21	4.69	67	27.1	0.890 B	53	4.53	6.35	47	25.8	21
22	3.95	63	21.5	1.30 B	47	5.28	5.16 B	36	16.0	22
23	3.39	59	17.3	1.52	42	5.52	4.73	33	13.5	23
24	2.93	53	13.4	3.28	89	19.6	4.08	38	13.4	24
25	2.59	49	11.0	5.57	87 S	41.9	6.11	71	37.5	25
26	2.55	48	10.8	5.56	55	26.4	8.26	90	64.2	26
27	3.10	61	16.3	11.1	136	130	7.56	74	48.3	27
28	6.78	123	72.1	10.0	91	78.6	6.97	67	40.3	28
29	8.10	89	46.9	7.08	69	42.1	6.37	63	34.7	29
30	4.84	66	26.5	5.20	56	25.2	5.98	62	31.9	30
31	3.57	61	18.8				5.19	61	27.4	31
TOTAL	485.10		5 299.7	90.373		589.35	186.96		1 038.3	TOTAL

B - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

SOUTH MAITLAND RIVER AT SUMMERHILL - STATION NO. 02FE009

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	PERCENT SILT	PERCENT CLAY
JAN 10	11:40	0.1	2.26	28.0	DH48	7															
FEB 12	12:35	0.1	2.34	28.0	DH48	22															
MAR 19	13:00	1.0	91.0	28.0	DH59	297	261														
MAR 19	14:25	1.0	91.0	28.0	DH59	310															
MAR 27	11:45	0.1	29.5	28.0	DH59	18															
APR 04	15:00		5.88	28.0	DH59	46															
APR 21	14:00		8.32	28.0	DH59	47	326														
MAY 13	10:50	17.0	0.843	28.0	DH59	10															
MAY 20	17:00		7.47	28.0	DH59	90															
MAY 21	10:30	11.0	15.9	28.0	DH59	108	465														
MAY 25	09:30	10.0	6.82	28.0	DH59	66															
JUN 09	12:30	18.0	0.675	28.0	DH48	52															
JUL 17	10:30	16.0	0.297	28.0	DH59	19															
JUL 29	11:50	21.0	0.582	28.0	DH48	20	440														
AUG 04	15:30		0.191	28.0	DH59	14															
OCT 08	13:00	11.5	19.7	28.0	DH59	100	456														
OCT 16	10:15	7.0	21.5	28.0	DH59	157	449														
NOV 18	16:00		1.67	28.0	DH59	67															
NOV 25	11:25	3.0	5.78	28.0	DH59	85															

NOTE : SINGLE VERTICAL LOCATED AT 28 METRES FOR 1986

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : APR-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1984	--PCCCCCCCCC	MANUAL	178	DEC 30	2	AUG 08 *	2 310	DEC 29	7 310	26.5	26.5	---
1985	CCCCCCCCCCCC	MANUAL	346	APR 05 *	3	AUG 14	2 380	APR 05	21 700	36.2	31.4	15.4
1986	CCCCCCCCCCCC	MANUAL	310	MAR 19	7	JAN 10	2 870	SEP 11 *	28 600 *	69.5	44.1	29.5

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ONTARIO

SOUTH NATION RIVER NEAR PLANTAGENET SPRINGS - STATION NO. 02LB005

SUSPENDED SEDIMENT FOR 1986

LOCATION: LAT 45 30 23 N LONG 74 57 20 W
DRAINAGE AREA: 3 810 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 43 800 TONNES FOR THE PERIOD MAR 25 TO JUN 02

REMARKS SEASONAL STATION 1985

DAY	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	DAY
1	5.85 B			304	118 S	2 100	13.0	46	51.7	1
2	5.60 B			156	91 S	1 230	13.2	46	52.5	2
3	5.85 B			117	59 S	596	13.3	46	52.9	3
4	6.10 B			87.8	57 S	432	13.2	46	52.5	4
5	6.35 B			68.2	54 S	318	13.0	45 S	50.5	5
6	6.25 B			52.2	54 S	244	15.8	46	62.0	6
7	6.15 B			43.1	55	474	20.1	52	90.3	7
8	6.05 B			146	97 S	1 220	27.4	56	133	8
9	5.95 B			159	104	1 430	23.3	51 S	103	9
10	5.85 B			131	61 S	690	19.6	49	83.0	10
11	6.80 B			101	42	367	18.2	46	67.2	11
12	7.20 B			79.0	34	232	13.0	47	52.8	12
13	7.60 B			76.0	41	269	11.9	46	47.3	13
14	8.10 B			67.9	38 S	223	10.9	45	42.4	14
15	8.60 B			60.9	43	189	9.52	44	36.2	15
16	12.4 B			41.6	50	180	10.0	45	38.9	16
17	21.0 B			38.1	51 S	169	13.6	48	57.2	17
18	55.0 B			31.7	50	137	15.8	50	68.3	18
19	180 B			27.8	50	120	20.9	56 S	101	19
20	426 B			25.5	48	106	58.2	104 S	505	20
21	375 B			26.3	48	109	163	257 S	3 630	21
22	319 B			27.8	48	115	160	215 S	3 340	22
23	284 B			24.0	48	99.5	189	131 S	2 140	23
24	197 B			23.5	47	91.4	235	83 S	1 890	24
25	150 B	26 S	337	20.8	47	84.5	167	50 S	721	25
25	137 B	27 S	320	19.8	47	78.5	107	52 S	481	26
27	248 B	95 S	2 040	18.2	47 S	73.9	87.1	53	397	27
28	283 B	121 S	2 950	16.9	47	68.6	46.9	51 S	207	28
29	287 B	111 S	2 750	15.8	48	62.6	37.3	51	164	29
30	335 B	184 S	5 330	13.6	46	54.8	26.5	51	126	30
31	282	153 S	3 730				21.6	51	94.7	31
TOTAL	3 663.70		17 467	1 946.5		11 557.1	1 593.22		14 638.4	TOTAL

DAY	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	16.5	52 S	83.1							1
2	16.0	65 S	85.5							2
3	17.7									3
4	15.6									4
5	14.7									5
6	12.3									6
7	10.7									7
8	10.2									8
9	10.2									9
10	9.44									10
11	7.90									11
12	8.07									12
13	14.9									13
14	15.0									14
15	20.7									15
16	20.1									16
17	19.2									17
18	17.1									18
19	14.9									19
20	12.9									20
21	11.3									21
22	9.87									22
23	8.45									23
24	9.25									24
25	10.1									25
26	8.82									26
27	10.8									27
28	15.6									28
29	19.3									29
30	19.7									30
31										31
TOTAL	415.40		168.6							TOTAL

B - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

SOUTH NATION RIVER NEAR PLANTAGENET SPRINGS - STATION NO. 02LB005

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)		SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 25	15:30	0.5	150	W	20.4	D49	28															
MAR 25	16:45	0.1	150	W	20.4	D49	23															
MAR 26	17:30	1.0	137	W	20.4	D49	24															
MAR 27	15:30	1.0	248	W	20.4	D49	108															
MAR 27	16:50	1.0	248	W	20.4	D49	106															
MAR 28	10:15	2.0	283	W	20.4	D49	125	309														
MAR 29	13:05	1.0	287	W	20.4	D49	98															
MAR 29	15:20	1.0	287	W	20.4	D49	107															
MAR 29	18:00	2.0	287	W	20.4	D49	108	210														
MAR 30	10:30	1.0	335	W	20.4	D49	194															
MAR 31	10:50	4.5	296		20.4	D49	161															
MAR 31	13:50	5.0	276		20.4	D49	192															
MAR 31	17:55	3.0	268		20.4	D49	131															
APR 01	17:00	7.0	193		20.4	D49	118															
APR 02	11:50	5.0	155		20.4	D49	93	355														
APR 02	17:15	9.0	148		20.4	D49	83	239														
APR 03	16:00	10.0	109		20.4	D49	55															
APR 04	17:00	10.0	83.0		20.4	D49	58															
APR 05	16:30	10.0	85.0		20.4	D49	54															
APR 06	13:30	9.0	91.4		20.4	D49	52	326														
APR 08	17:00	6.5	155		20.4	D49	105															
APR 10	18:15	7.0	126		20.4	D49	55															
APR 14	11:40	5.0	68.7		20.4	D49	37															
APR 17	18:00	11.0	34.9		20.4	D49	51															
APR 27	18:00	18.0	16.8		20.4	D49	47															
MAY 05	18:00	13.0	13.6		20.4	D49	45	407														
MAY 09	18:30	14.0	31.4		20.4	D49	49															
MAY 19	18:40	11.0	24.0		20.4	D49	60															
MAY 20	18:10	11.0	69.4		20.4	D49	127	432														
MAY 21	17:15	12.0	180		20.4	D49	306															
MAY 22	19:15	15.0	178		20.4	D49	153															
MAY 23	18:40	15.0	197		20.4	D49	148	589														
MAY 24	14:00	16.0	245		20.4	D49	48	514														
MAY 25	13:50	16.0	187		20.4	D49	53															
MAY 26	16:30	17.0	194		20.4	D49	53															
MAY 28	16:00	19.0	84.6		20.4	D49	54	473														
JUN 01	19:45	23.0	17.5		20.4	D49	52															
JUN 02	11:30	18.0	16.0		10.0	X DH48	57															
JUL 29	09:50	25.0	22.2		10.0	X DH48	58	336														

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

DISCHARGE SYMBOL(S): W - DAILY MEAN; ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MAR-AUG MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1972	CCCCCCCCCCCC	DUAL	898	APR 13	14	MAY 17	38 000	APR 16	915 000	2 030	2 030	---
1973	CCCCCCCCCCCC	DUAL	887	MAY 19	18	JAN 02	23 800	MAY 19	309 000	1 500	1 770	19.0
1974	CCCCCCCCCCCC	DUAL	812	APR 06	15	JAN 11	35 500	APR 06	283 000	1 910	1 680	10.4
1975	CCCCCCCC----	DUAL	285	APR 15	4	MAR 25 *	3 280	APR 20	83 500	427	1 370	24.4
1976	CCCCCCCC----	MANUAL	5 890	MAY 21 *	11	MAR 08	157 000	MAY 20 *	535 000 *	2 910	1 880	24.0
1977	P-CCCCCP-CCC	MANUAL	147	MAR 17	16	DEC 19	9 840	MAR 17	98 200	---	---	---
1978	CCCCPPPPPPP-	MANUAL	435	APR 13	18	FEB 15	31 400	APR 14	210 000	---	---	---
1979	P-CCCCCCCCCC	MANUAL	435	MAR 24	19	JAN 04	20 700	MAR 25	192 000	784	1 530	23.5
1980	--CCCCP----	MANUAL	829	APR 10	22	MAR 13	25 800	APR 10	153 000	---	---	---
1981	-PCCCCCPPPP	MANUAL	842	JUN 23	12	MAR 21	47 700	FEB 22	244 000	384	1 370	26.3
1982	CCCCCCCCCCC	MANUAL	854	APR 01	12	JAN 12	31 800	APR 01	235 000	1 010	1 330	22.9
1983	CCCCCCCCCCC	MANUAL	87	APR 10	18	JAN 21	4 750	MAY 03	196 000	430	1 330	23.3
1984	P-CCCCPPP-PP	MANUAL	458	APR 05	10	MAR 15	23 100	APR 05	102 000	---	---	---
1985	--CCCP-P-PP-	MANUAL	418	MAR 14	24	NOV 21	9 880	MAR 15	143 000	---	---	---
1986	--PCCPP-----	MANUAL	306	MAY 21	23	MAR 25	5 330	MAR 30	43 800	---	---	---

DUAL - MANUAL AND AUTOMATIC SAMPLING MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ONTARIO

SPEED RIVER NEAR ARMSTRONG MILLS - STATION NO. 02GA040

LOCATION: LAT 43 38 19 N LONG 080 16 12 W
DRAINAGE AREA: 187 km²
TYPE OF FLOW: REGULATED SINCE 1976
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM START MARCH 1986

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 19	08:15	1.0	17.3	8.0	DH59	135 C	286														
MAR 27	16:05	6.0	11.9	8.0	DH59	9	352														
SEP 11	17:30	23.0	75.5	14.6 X	DH59	52	312														

NOTE: SINGLE VERTICAL LOCATED AT 6 METRES FOR 1986

CONCENTRATION SYMBOL(S): C - COARSE MATERIAL PRESENT

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY: MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1986	--P------P---	MANUAL	135	MAR 19 *	9	MAR 27 *	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

SYDENHAM RIVER AT FLORENCE - STATION NO. 02GG003

SUSPENDED SEDIMENT FOR 1986

LOCATION LAT 42 39 00 00 N LONG 82 00 32 W
DRAINAGE AREA 1 160 km²
TYPE OF FLOW NATURAL
TYPE OF GAUGE RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 32 900 TONNES FOR THE PERIOD MAR 01 TO JUN 30

REMARKS:

	MAR			APR			MAY			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	5.52 B	24	13.5							
2	5.38 B	23	12.1	9.80	43	35.7	5.44	120 S	56.8	1
3	6.00 B	23	12.6	9.47	43	35.2	5.72	110	54.4	2
4	7.20 B	24	14.8	9.08	26	20.4	5.37	104 S	48.3	3
5	8.00 B	61	31.9	8.39	21	15.2	4.89	102	43.1	4
				7.69	20	13.6	4.58	110	43.5	5
6	10.1 B	92	112							
7	10.6 B	99	145	10.4	57	51.2	4.32	105	39.2	6
8	13.5 B	84	98.0	12.2	81	95.9	4.26	103 S	38.1	7
9	9.80 B	34	29.8	11.6	60	60.1	4.10	98 S	34.3	8
10	22.5 B	46	88.3	10.3	49	43.8	3.92	88 S	29.8	9
				9.73	36	31.9	3.66	87	27.7	10
11	108 A	369	3 380							
12	138	393 S	5 600	9.04	28	22.7	3.45	93	27.7	11
13	104	183	1 370	8.86	36	27.6	3.30	104	29.7	12
14	83.7	136	980	9.13	57	45.0	3.23	102	28.5	13
15	99.1	190	1 630	8.58	40 S	29.8	3.13	104	28.1	14
				7.97	28 S	19.3	3.04	104 S	27.3	15
16	78.0	100	687	8.45	30	21.9	3.22	111 S	30.9	16
17	63.0	38	185	11.1	83	79.6	3.48	114 S	34.4	17
18	43.5	44	107	13.5	114	133	3.81	113	37.2	18
19	70.0	509	3 300	11.6	58	58.1	5.03 E	127	55.2	19
20	108	483 S	4 230	10.3	56	49.8	7.61 E	253 S	166	20
21	83.8	161	834	29.0 A	401	1 000	13.1 E	222 S	251	21
22	39.8	73	252	49.4	288 S	1 230	10.8 A	138 S	236	22
23	36.6	78	166	30.7	144	382	15.7 E	194	263	23
24	24.5	73	152	20.8	83	150	13.8 E	214	255	24
25	20.9	50	90.2	17.3	49 S	73.2	12.0 E	192	199	25
26	18.4	50	79.6	13.8	29 S	46.5	9.80 E	172	146	26
27	17.3	44	65.8	10.6	34	31.7	7.85 E	182	110	27
28	16.9	61	96.3	8.97	31	24.0	8.62 A	164 S	88.1	28
29	16.3	36	44.9	7.75	28	18.7	5.88	142	69.7	29
30	12.8	33	36.9	6.97	58 S	34.9	4.86	136 S	57.1	30
31	10.9	33	31.1				4.19	131	47.4	31
TOTAL	1 270.80		32 062.4	302.78		3 880.4	200.04		2 612.5	TOTAL

	JUN									
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	3.07	136	80.0							1
2	3.13	119	32.2							2
3	2.72	106	37.9							3
4	2.84	112	36.6							4
5	2.63	134 S	38.8							5
6	2.60	161 S	35.1							6
7	3.79	131	39.6							7
8	3.88	183 S	54.3							8
9	2.40	113	23.4							9
10	3.23	126 S	33.9							10
11	9.78 A	178	129							11
12	48.8 A	286	1 000							12
13	59.9	242	1 250							13
14	41.4	178	660							14
15	19.3	89	186							15
16	16.3	100	141							16
17	13.6	87	107							17
18	8.36	91	67.7							18
19	8.39	154	88.9							19
20	8.48	178	130							20
21	6.66	133	88.8							21
22	6.15	117	62.1							22
23	6.39	105	45.6							23
24	6.63	113 S	39.3							24
25	3.85	107	33.7							25
26	3.18	107	29.2							26
27	3.94	107	37.2							27
28	3.84	106	34.0							28
29	3.36	103	29.8							29
30	3.11	101	18.4							30
31										31
TOTAL	283.79		4 377.6							TOTAL

A - MANUAL GAUGE B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

SYDENHAM RIVER AT FLORENCE - STATION NO. 02ES003

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)		SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002 .004 .008 .016 .031 .062 .125 .250 .500 1.00 2.00	PERCENT SAND SILT CLAY
FEB 20	12:30	0.1	20.3	W	26.0	DH59	46			
FEB 22	14:45	0.1	31.5	W	26.0	DH59	41	330		
MAR 12	17:15	1.0	141		26.0	DH59	238			
MAR 20	10:40	2.0	109		26.0	DH59	518	262		
APR 14	15:55	10.0	8.41		26.0	DH59	34			
APR 15	12:10	9.0	7.88		26.0	DH59	27	357		
APR 22	11:00	8.0	54.1		26.0	DH59	273	447		
APR 25	17:00	14.0	18.8		26.0	DH59	44			
APR 28	18:00	14.5	13.0		26.0	DH59	37			
APR 30	12:20	13.0	8.87		26.0	DH59	29			
APR 30	17:45	15.0	8.67		26.0	DH59	93			
MAY 01	18:30	15.0	8.18		26.0	DH59	114			
MAY 03	17:30	14.0	5.32		26.0	DH59	100	443		
MAY 07	19:45	16.0	4.27		26.0	DH59	103			
MAY 08	13:10	18.0	4.11		26.0	DH59	86			
MAY 09	16:10	17.0	3.85		26.0	DH59	87	344		
MAY 15	17:30	20.0	3.04		26.0	DH59	106			
MAY 16	17:10	19.0	3.24		26.0	DH59	113			
MAY 17	18:00	21.0	3.53		26.0	DH59	113			
MAY 20	20:00	16.0	9.34		26.0	DH59	337	417		
MAY 21	15:00	13.0	15.6		26.0	DH59	137			
MAY 22	11:30	13.0	19.6		26.0	DH59	93	720		
MAY 22	11:50	13.0	19.8		26.0	DH59	138			
MAY 28	17:10	21.0	5.67		26.0	DH59	151			
MAY 30	16:30	24.0	4.88		26.0	DH59	135			
JUN 05	14:10	21.0	2.66		26.0	DH59	140			
JUN 08	19:30	18.0	2.74		26.0	DH59	148			
JUN 08	10:30	21.0	2.79		26.0	DH59	124	411		
JUN 10	18:45	21.0	2.20		26.0	DH59	134			
JUN 24	15:10	21.0	3.87		26.0	DH59	110			
JUL 08	11:40	23.0	1.52		10.0	X DH48	52	482		
SEP 08	14:30		0.802		10.0	X DH48	39	481		
OCT 08	13:50	10.0	25.1		26.0	DH59	88	585		
NOV 06	09:40	7.0	6.16		26.0	DH59	16	476		

NOTE : SINGLE VERTICAL LOCATED AT 26 METRES FOR 1986

DISCHARGE SYMBOL(S): W - DAILY MEAN; ICE CONDITIONS
VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1986	-PCCCCP-PPP-	MANUAL	518	MAR 20 *	16	NOV 06 *	4 330	MAR 20 *	32 900 *	---	---	---

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

THAMES RIVER AT INNERKIP - STATION NO. 02ED021

LOCATION: LAT 43 12 55 N LONG 080 41 24 W
DRAINAGE AREA: 149 km^2
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1986

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002 .004 .008 .016 .031 .062 .125 .250 .500 1.00 2.00	PERCENT SAND SILT CLAY
MAR 13	12:00	1.0	11.7	12.0	DH59	24	355		
MAR 19	09:25	1.5	36.3	12.0	DH59	308	290		
APR 16	08:10	6.0	1.52	12.0	DH48	25	453		
MAY 30	07:50	20.0	0.752	12.0	DH48	7	405		
SEP 25	12:10	18.0	1.00	12.0	DH48	24			

NOTE : SINGLE VERTICAL LOCATED AT 12.0 METRES FOR 1986

ONTARIO

THAMES RIVER AT INNERKIP - STATION NO. 02GD021

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			SAMPLED CONCENTRATION MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)			SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY MEAN LOAD (TONNES)	SUMMARY HISTORICAL MEAN LOAD (TONNES)	SUMMARY STANDARD ERROR OF MEAN %
1984	-P---P--CCCC	DUAL	1 710	FEB 16	*	6	SEP 13		7 810	FEB 14	*	20 300 *	---	---	---
1985	CCCCCCCCCCCC	DUAL	1 030	APR 05		0	DEC 09	*	2 070	APR 05		10 300	28.3	28.3	---
1986	--PPP---P---	MANUAL	308	MAR 19		7	MAY 20		---	---		---	---	---	---

DUAL - MANUAL AND AUTOMATIC SAMPLING MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

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02BF002	COULAIS RIVER NEAR SEARCHMONT	25
02ED003	MOTTAWASAGA RIVER NEAR BAXTER	39
02FD001	PINE RIVER AT LURGAN	43
02FE008	SOUTH MAITLAND RIVER AT SUMMERHILL	45
02FF002	AUSABLE RIVER NEAR SPRINGBANK	2
02FF007	BAYFIELD RIVER NEAR VARNA	5
02FF008	PARKHILL CREEK ABOVE PARKHILL RESERVOIR	42
02GA010	NITH RIVER NEAR CANNING	37
02GA039	COMESTOGO RIVER ABOVE DRAYTON	14
02GA040	SPEED RIVER NEAR ARMSTRONG MILLS	50
02GB001	GRAND RIVER AT BRANTFORD	26
02GB007	FAIRCHILD CREEK NEAR BRANTFORD	24
02GC002	KETTLE CREEK AT ST. THOMAS	32
02GC007	BIG CREEK NEAR WALSINGHAM	7
02GC015	LITTLE OTTER CREEK NEAR STRAFFORDVILLE	32
02GC018	CATFISH CREEK NEAR SPARTA	14
02GC022	NANTICOKE CREEK AT NANTICOKE	36
02GC026	BIG OTTER CREEK NEAR CALTON	11
02GD015	NORTH THAMES RIVER NEAR THORNDALE	37
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02GE007	MCGREGOR CREEK NEAR CHATHAM	34
02GG003	SYDENHAM RIVER AT FLORENCE	51
02GG009	BEAR CREEK BELOW BRIGDEN	6
02GH002	RUSCOM RIVER NEAR RUSCOM STATION	44
02HA014	REDHILL CREEK AT HAMILTON	43
02HB002	CREDIT RIVER AT ERINDALE	16
02HC013	HIGHLAND CREEK NEAR WEST HILL	27
02HC018	LYNDE CREEK NEAR WHITBY	33
02HC024	DON RIVER AT TODMORDEN	20
02HC025	HUMBER RIVER AT ELDER MILLS	28
02HC030	ETOBICOKE CREEK BELOW QUEEN ELIZABETH HIGHWAY	24
02HD012	GANARASKA RIVER ABOVE DALE	25
02HM003	SALMON RIVER NEAR SHANNONVILLE	44
02HM007	NAPANEE RIVER AT CAMDEN EAST	36
02LA008	KEMPTVILLE CREEK NEAR KEMPTVILLE	31
02LB005	SOUTH NATION RIVER NEAR PLANTAGENET SPRINGS	48
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04ME003	ABITIBI RIVER AT ONAKAWANA	1

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[illegible] BELOW BRIDGE	02GG009	6
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